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ABSTRACT

The stated goal of this project was to accomplish two broad objectives: (1) to give educators an opportunity to observe and work with culturally disadvantaged children with learning disabilities, and (2) to evaluate the impact of an individualized remedial program for these children. This report describes and discusses project-related activities and the implications which may be derived from these experiences and empirical findings, and constitutes a final statement on the first phase of the project. This first part presents the demonstration and training facets, which focuses on efforts to provide individualized instruction in special classroom settings and describes the next phase of the project which will incorporate demonstration, training and research activities directly in the general public school classrooms. Also included are appendices on creative writing, the student as teacher, videotape recorders and other programs utilizing closed circuit television. (Author/KJ)

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FINAL REPORT

(in 2 parts)

# A TRAINING, DEMONSTRATION, AND RESEARCH PROGRAM
for the
REMEDIATION OF LEARNING DISORDERS
in
CULTURALLY DISADVANTAGED YOUTH

Fernald School

Department of Psychology

University of California, Los Angeles

CG004625

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Dreams

A dream is something you see;
Something you wish for, that often
comes true. I have dreams, dreams that
I wish to come true . . . .

Love

A man can have big cars and houses
And lots of money
But love is not cars, houses, and money
Love is just a kindly affection for
each other.
Love is not a person's appearance
And not for marrying someone for
their money and social position
But love is just loving someone for
what they are.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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Preface and Acknowledgements

In June, 1966, the staff of the Fernald School (then known as the Psychology Clinic School), with the cooperation of the Los Angeles Unified School District, initiated a training, demonstration, and research project focusing on learning problems among disadvantaged youth. The stated goal of this project was to accomplish two broad objectives: (1) to provide teachers, teachers-in-training, counselors and other professional personnel the opportunity, within the framework of specially designed demonstration programs, to observe and work with children from culturally disadvantaged backgrounds who manifest significant disabilities in learning; and (2) to evaluate the impact of an intensive, individualized remedial program upon the learning skills, aspiration levels and self-attitudes of culturally disadvantaged children. While there have been a number of more specific objectives which have arisen within the framework of these broader goals, the major focus over the past three years has remained on these larger concerns.

This report describes and discusses project-related activities and the implications which may be derived from our experiences and empirical findings, and constitutes a final statement on the first phase of the project--the period from June, 1966, through June, 1969. The report is presented in two parts, with the demonstration and training facets and the research facets presented under separate covers. The discussion of the demonstration and training facets focuses on our efforts to provide effective individualized instruction in _special_ classroom settings and describes the next phase of the project which will incorporate our demonstration, training and research activities directly in the _general_ public school classrooms. The second part of the report presents the research procedures and findings and focuses on basic issues relevant to educating the disadvantaged.

In addition to this report, over the past three years we have prepared a number of special reports on research and other related activities which the project has stimulated. A listing of the special reports currently available can be found at the end of this preface. Other special reports are being prepared and will be available in the near future.

This final report represents the efforts and dedication of a great many individuals who are part of the Fernald School staff or who were associated with the School and/or project during the past three years. The contributions made have been many and diverse. It is not feasible to describe and acknowledge every individual's contribution; however, there are some individuals whose intensive participation in various aspects of the project should not go unmentioned.

At the onset, it should be recognized that a project of this scope and nature would not have been possible without the interest, cooperation, and support of many dedicated professionals in the

State Office of Compensatory Education and in the Los Angeles Unified School District.

Of major importance throughout the project has been the leadership of the supervisory staff of the Fernald School -- especially Dr. Frances Berres, the Associate Head of the School and Associate Project Director; Dr. Howard Adelman, who, in Dr. Berres' absence, served as Acting Assistant Head of the School during the first year of the project and as Associate Project Director throughout the three year period; Mrs. Joyce Allen Eyer, Mrs. Mary Strommer, the late Katherine MacMahon, and Mrs. Shelby Wegner, teaching supervisors; and Dr. Edward Burke, tutorial and project supervisor. Without their foresight, initiative, and also courage, this project would not have been undertaken. Dr. Berres, in her executive-administrative role, helped coordinate the various facets of the project and, in her other roles, contributed many ideas over the course of the project to the research and training programs and gave much support to the children. Dr. Burke took a special interest in the counselor training but also contributed his wisdom to the research evaluation. Mrs. Eyer continued on at the Fernald School, even after retiring as teaching supervisor, and lent her experience and thoughtfulness to many a problem. Mrs. Wegner joined the staff during the last year of the project as teaching supervisor, and the energy and spark she added was well received by the teachers and children. Dr. Adelman participated in every phase of the project -- in the counselor and teaching program, in the implementation of the project, in the evaluation, and in the preparation of the reports. His energy, ideas, attention to detail and to overall process contributed in countless and indispensable ways to the project. He clearly must share the responsibility as well as the credit.

In a very real sense, the teachers were the core of this project. They were most intimately involved with the children, worked very hard and very patiently, and became closely attached to them. In enumerating the list of teachers, one should not lose sight of the ideas, concerns and unique contribution of each: Mrs. Amy Droke, Mrs. Gail Ennis, Mrs. Jeanne Fryer, Mrs. Glenda Gay, Mrs. Arlene Ingber, Mr. Harry Rosemond, Mr. Jerome Squire, and Miss Toby Talbot. During the final year of the project, they were assisted by Mrs. Mike Cannon, Mrs. Joan Lizer, Miss Virginia Nail, and Mrs. Gloria Nimmer. Mr. Kent Newell, assisted by his staff, was responsible for the physical education program. The process of integration -- both the friction and the cement -- could be readily observed on the playing field. Integration could also be readily observed in the creative and inspiring art program conducted by Mr. John Otterson.

The teachers in the Enrichment program had a difficult task, being partially isolated from the Fernald School and also not being quite part of the child's home school. Nevertheless, they maintained their interest and enthusiasm. In this group of teachers were Mrs. Marian Charnas Brown, Mrs. Lynn Copes, Mrs. Louise Fields, Mrs. Susan Kapitanoff, Mrs. Rita Knipe, Mrs. Belle Mason, and finally, Mr. Scott O'Leary, who supervised a well-organized, intensive Enrichment program during the final year of the project.

We were most fortunate in having a group of mature and dedicated University students, including graduate students in Social Work, Psychology, and Education. These students participated in family and social contacts and in various therapeutic and educational programs with the children and, in general, displayed interest and effort which went far beyond that required to meet student needs and obligations. The graduate students were fortunate in having as their supervisors: Miss Jane Bullions, who was a bulwark of devotion and resourcefulness during the entire tenure of the project; Mrs. Sarita Unger, a more recent addition to the social work staff who quickly became involved in the School and the project and was most helpful; and Dr. Bruce Rubenstein, who, in addition to his training activities, brought many stimulating ideas to the research program as well as to the psycho-educational facets of the project.

Four other individuals who contributed importantly were Mr. John Long, Mr. Will Fuller, Mr. John Simpson, and Mr. David Whaley. Mr. Long participated in two capacities -- as a graduate student and as a research assistant. He actually functioned in many capacities -- counselor to the boys, interviewer, statistical analyst -- perhaps most descriptively as a general trouble shooter. His involvement and ready participation during the initial and subsequent periods of the project were both substantial and generous. Mr. Fuller, who technically held the title of research assistant, spent many late evening hours at the computer center as well as day-light hours at the School. The excellent job he did of preparing the statistical analysis and computer output greatly facilitated the preparation of the final report. More importantly, however, his participation throughout every facet of the evaluation process and his helpfulness in most other facets of the program can only be described as outstanding. Mr. Simpson was responsible for much of the statistical analysis and computation during the first two years of the project and provided valuable consultation during the third year. Mr. Whaley joined the staff as our media specialist during the third year and, like so many of the others, he soon found himself immersed in, and helping with, almost every facet of the project.

Finally, but not least, there are the unsung secretarial and clerical associates who carry out a great many tasks besides what their job titles convey. Mrs. Marilyn Ehrenberg functions as Administrative Assistant of the Fernald School and helped resolve budgetary, personnel, and other problems. Miss Barbara Mooney and Miss Susan Fielding served as project secretaries. Their respective cooperativeness, patience, tolerance and devotion to the project are gratefully acknowledged.

Seymour Feshbach, Ph. D.
Project Director

Special Reports (currently available)

"Variations in teacher's reinforcement style and imitative behavior of children differing in personality characteristics and social background."

"Books and the culturally disadvantaged child."

"The effects of varying amount of motoric involvement on the learning of nonsense dissyllables by male culturally disadvantaged readers." (Summary and conclusions of dissertation)

"Some thoughts on research and program development for 'culturally disadvantaged' (and other exceptional) children."

"Negro representation in trade books written for young people: a qualitative analysis."

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REPORT ON:

DEMONSTRATION AND TRAINING FACETS

In view of the fact that no one has yet been able to design a truly effective demonstration program of compensatory education which can be initiated in racially-isolated public schools, we have consistently considered our programs to be experimental and the project as a whole to be developmental. In keeping with this perspective, we have been continuously concerned with evaluating and revising our programs throughout the three year period. Therefore, in this report, we attempt not only to describe the general characteristics of our demonstration and training activities, but to clarify what changes have occurred and why. The description of the programs focuses first on the demonstration activities and includes discussion of the Fernald School and School Enrichment Programs, as well as the role of the videotape recorder as a special aid in demonstration activities, and, second, on the various pre- and in-service training activities in which we have been involved. The focus then shifts to a discussion of the new directions which are planned for our demonstration and training activities in the coming year.

I. Demonstration Activities

A. Fernald School Program

(formerly the Psychology Clinic School)

The Fernald School was established at the University of California, Los Angeles, in 1921, as a research and teaching center for the diagnosis and treatment of learning disorders--particularly those learning difficulties which are not due to mental retardation or severe neurological or emotional pathology, but which have proved resistant to remediation in a regular school setting. Since 1957, the school has been housed in a model remedial center with excellent facilities for research, training, and observation. Approximately 90 children, all boys, ranging in age from 7 through 17, attend the school on a full time basis. An additional 100 children, both boys and girls, receive individual instruction on a hourly basis. The school is also a consultation center and provides extensive diagnostic services to children in the Southern California area. The Fernald School is a facility of the Psychology Department, and has a number of close, formal and informal, relationships with the School of Education. Thus, the facility represents a true effort to blend contemporary psychological and educational thought.[1]

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[1] Although the Fernald School is a part of the University, it is largely self-financed with the exception of the building costs. Therefore, fees are charged for all services and, while the fees are considerably less than those of comparable facilities, they are still sufficiently high to have restricted the school's services in the past to children from economically advantaged backgrounds.

There are three major factors which clearly differentiate the experiences of the children at the Fernald School from the more typical, standard school experience. These three factors are: (a) the degree to which the programs are individualized; (b) the student to teacher ratio; and (c) the total Fernald School environment which results from the interaction of these two factors, as well as other variables.

1. Individualization of Instruction

In discussing individualization, two basic issues must be dealt with. The first issue centers around what is to be taught, and the second issue concerns the process and mechanics of individualized instruction. When the issue of what is to be taught is raised in the context of a discussion of individualization, the only consistent answer is that the immediate teaching objectives depend on the individual's needs. This answer may be evading the issue, but at the same time, it emphasizes the difference between the current normative approach to the disadvantaged and an approach based on individual differences. An example may help to clarify the point. Current preschool programs for the disadvantaged have been designed to facilitate, among other things, the development of perception, conception, linguistics, and motivation (Bereiter and Engelmann, 1966; Bloom, Davis, and Hess, 1965; Telford and Sawrey, 1967). While some disadvantaged children may still need special help in these areas during their later schooling, certainly not all disadvantaged children need such help. And, as educators in the area of major learning disorders have pointed out, these same needs are to be found in many children from non-culturally disadvantaged backgrounds (Feshbach, Adelman, and Burke, 1968). Thus, it would seem that the same teaching objectives would be no more appropriate for all disadvantaged children than they would be for some other designated group. Consequently, our discussion of what should be taught must rest with the view that the immediate teaching objectives for any child will inevitably be different.

It should be noted that the emphasis here is on immediate teaching objectives. With reference to the long range goals of formal education, it is felt that, since we cannot predetermine a child's needs or capabilities, the overall goals of an educational program should be the same for all children. That is to say, we feel there is no acceptable reason for depriving any child of the opportunity to achieve any facet of the stated goals of the educational system--whether these goals be the teaching of the three R's or, more generally, involve the preparation of students to cope with the demands of the world in which they live.

The question of how to individualize instruction is admittedly the more demanding issue. It is clear that classrooms are most complex places where a large number of variables must interact smoothly if learning is to be effective and efficient (see Table 1).

At the Fernald School, teachers attempt to adjust their instructional efforts to meet the individual student's needs with regard to rate, style, extent, and quality of learning. In doing so, they employ a process which has been conceptualized as consisting of four facets, each "feeding" the next in a circular

Table 1

SOME OF THE KEY STRUCTURAL AND FUNCTIONAL VARIABLES WHICH SHOULD BE CONSIDERED IN ANALYZING EDUCATIONAL PROGRAMS

Subject (Person) Related Variables

I. Staff Related Variables

- A. Number in each category
  (e.g., teachers, trainees, aides, supervisors, consultants)
- B. Individual differences
  (e.g., sex, age, training, experience, personality)
- C. Role
  (e.g., direct or indirect involvement in program planning and functioning; type and amount of student and parent contact)
- D. Relationship to each other
  (e.g., each functions autonomously, team approach)

II. Student Related Variables

- A. Number
  (e.g., in each program, class, or group)
- B. Criteria for placement in a specific program or class
  (e.g., age, I.Q., sex, achievement)
- C. Types of grouping within a program or class
  (e.g., homogeneous and/or heterogeneous)
- D. Criteria for change to a new program, class, or group
  (e.g., age, grades, type of task focus)

III. Parent Related Variables
(e.g., role in facilitating program)

IV. Interaction of Person Variables
(e.g., student -- teacher; staff -- parents)

Table 1 (Continued)

- -

Task (Goals and Objectives) Related Variables

- -

I. Emphasis on Teaching Basic Skills and Behaviors

  A. "Readiness" skills
  (e.g., attention, listening, following directions)

  B. Basic academic skills
  (e.g., attention, listening, following directions)

  C. Perceptual-motor skills
  (e.g., visual and auditory perception, gross and fine motor coordination)

  D. Linguistic skills
  (e.g., receptive and expressive language)

  E. Processing skills
  (e.g., concept formation, memory, thinking abstractly, complexly and productively)

  F. Social competencies
  (e.g., interpersonal skills, citizenship, sex education)

  G. Appropriate coping behaviors
  (e.g., cooperation, self control, hygiene)

  H. Sports skills
  (e.g., individual, team)

II. Emphasis on Teaching Content
(e.g., science, history)

III. Emphasis on Teaching Fine Arts
(e.g., music, dance, art)

IV. Emphasis on Teaching Shop or Vocational Skills
(e.g., printing, auto mechanics, home economics)

V. Miscellaneous Other Skills, Behaviors, and Attitudes
(e.g., creativity, aesthetics, humanity)

VI. Criteria for Change in Task Focus
(e.g., age, length of time in program, progress, transition periods between programs or grade levels)

Table 1 (Continued)

Procedural Related Variables

I. Procedural Patterning and Sequencing (Scheduling, Programming)

- A. Time variables
  (e.g., length of school day, time devoted to specific tasks, rate of presentation, spacing of practice)

- B. Order variables
  (e.g., order in which tasks are taught, order of presentation of material within a specific day

- C. Space variables
  (e.g., facilities, availability and use)

- D. Criteria for change of patterning and sequencing
  (e.g., age, length of time in program, progress, transition periods between programs or grade levels)

II. Specific Techniques Emphasized

- A. Classroom-based approaches
  (e.g., individualization of instruction; formal diagnosis; informal and/or task analysis approaches to determing student's needs and teaching strategies; use of varying combinations of sense modalities; varying degree of structure and difficulty; teaching to strengths, weaknesses, or both; overlearning; varying degree of meaningfulness of presentations; varying degree of contrasts or vividness in presentations)

- B. Extra-curricular approaches
  (e.g., student counseling and/or psychotherapy; parental counseling and/or course work; sensitivity training for staff, students and/or parents)

III. Specific Materials and Equipment Emphasized
(e.g., varying use of group oriented material such as basal texts, as contrasted with individually oriented materials such as programmed or computer aided instruction; varying degree of novelty)

Table 1 (Continued)

- -

Feedback (and Incentive) Related Variables

- -

I. Types of Feedback Interactions

  A. Teachers -- students
  (e.g., material and social reinforcement, grades, test scores)

  B. Teachers -- trainees
  (e.g., ratings, conferences)

  C. Teachers -- supervisors and consultants
  (e.g., ratings, conferences, in-service programs)

  D. School staff -- parents
  (e.g., written reports, grades, conferences)

II. Levels of Feedback

  A. Formal
  (e.g., specified, systematic)

  B. Informal
  (e.g., spontaneous, unsystematic)

III. Patterning and Sequencing of Feedback

  A. Quantity
  (e.g., amount, frequency)

  B. Quality
  (e.g., reward, punishment)

  C. Criteria for change of patterning and sequencing
  (e.g., needs of student, demands on staff)

- -

(The interaction of the key variables in a specific program or class yields the overall PHYSICAL AND EMOTIONAL ENVIRONMENT.)

fashion (see Figure 1):

(a) individual assessment of student's strengths, weaknesses, and limitations;

(b) individual planning of each student's program;

(c) individualization in carrying out instruction;

(d) individual evaluation of progress.

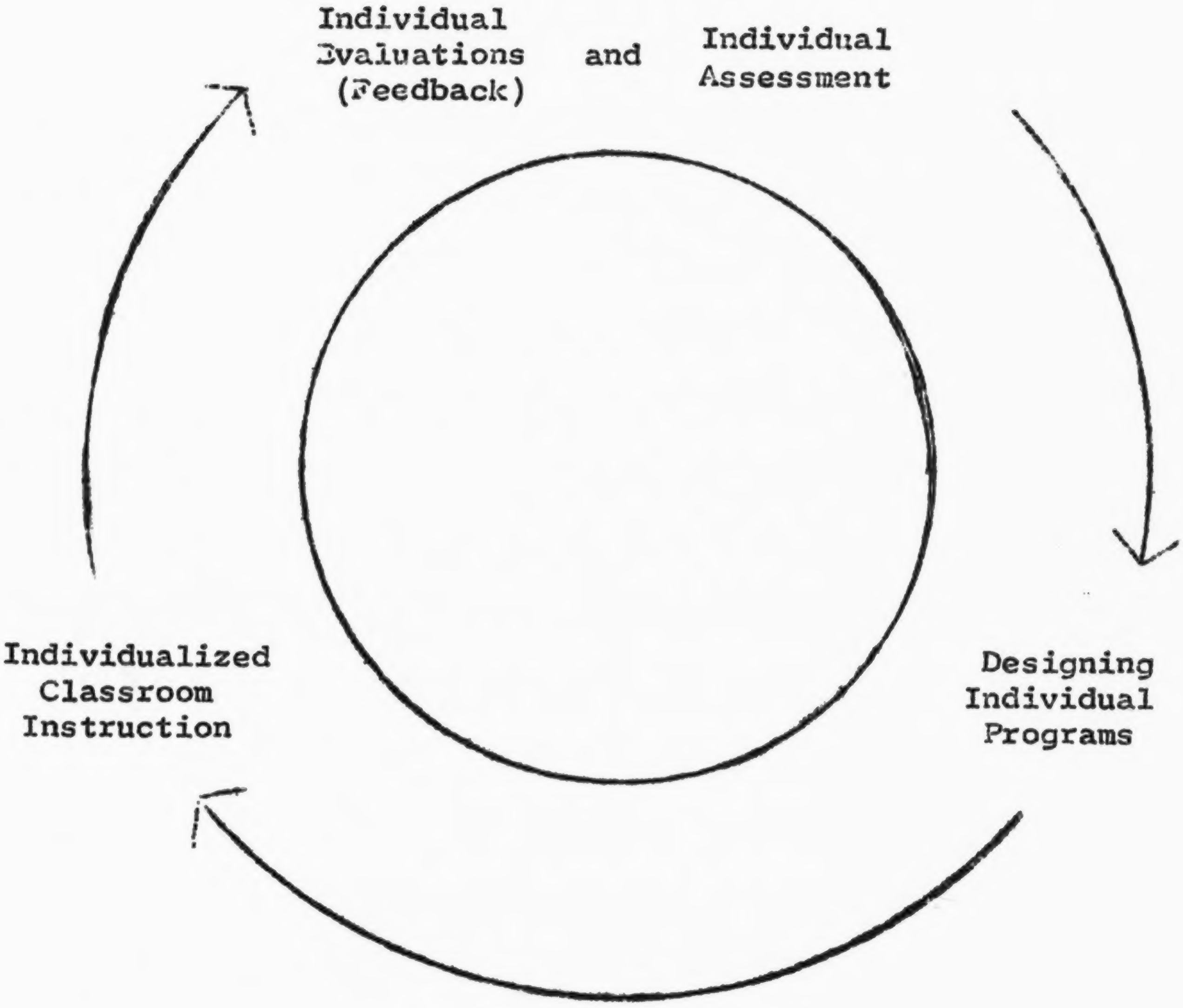
This process of individualization is in marked contrast to the typical procedure of using whatever normative data is available to assign students to classes where programs are determined usually by a student's current chronological grade placement, where instruction is designed to meet the needs of the majority, where progress is evaluated by comparing a student's performance with that of the rest of the class or to some arbitrary standard, and where little in the way of extra curricular supports are available.

(a) Assessment. At the Fernald School, assessment or diagnosis is continuous and multi-disciplinary. Initially, whatever medical, psychological, educational and socio-cultural information is available regarding a student is used to provide a basis for formulating a total remediation program which may include several types of therapeutic interventions in addition to classroom instruction. After the initial treatment plan is put into effect, informal diagnosis becomes an integral part of every student contact, and programs are altered as new information points to different treatment approaches.

(b) Designing the programs. As stated above, each student's total treatment plan is outlined and initiated on the

Figure 1

THE INDIVIDUALIZATION PROCESS


Individual Evaluations (Feedback)
and
Individual Assessment
Designing Individual Programs
Individualized Classroom Instruction

basis of as much formal and informal assessment information as is available, and each program is altered as further data are accumulated. Such a treatment plan might include psychotherapy, social work contact with the family, special motor coordination training with a physical education instructor as well as remedial classroom instruction. Since it is the classroom which is the center of focus of this project, the following discussion focuses on that program.

In the classroom, each lesson is designed to remedy those deficiencies, e.g., in auditory discrimination, visual perception, comprehension skills, etc., which are believed to be contributing to a particular student's learning problems. The emphasis is on teaching basic school skills - reading, language, and mathematics - rather than content subjects, such as science or social studies. However, if a student is highly motivated to pursue a specific subject, this interest will determine the subject matter of various reading and language assignments. It is also to be noted that in addition to basic skill instruction, each student participates in a daily physical education program, and a variety of special project activities.

(c) Carrying out instruction. Class lessons are minimized at Fernald, but whether or not a lesson is given to the class as a whole or to an individual student, the teacher structures each task so that the student is striving to perform at a slightly higher level, quantitatively and/or qualitatively, than he did the time before.

In general, each student's program is flexibly designed so that change occurs frequently whenever there is a need or purpose for such change. Thus, for example, when a student becomes enthused over some purposeful learning activity, he is allowed to pursue his interest; however, while he is given this opportunity to explore various interests and areas which might lead him to greater involvement in learning, he is not left without direction or permitted to flounder.

It is of interest to note that in many instances the materials used in individualizing a student's program at the Fernald School are similar or the same as those available in the regular schools. However, these materials, when utilized, tend to be used inflexibly by many regular school teachers because they have designed their programs to be suitable for the majority of the class and the program, once initiated, is usually not altered.

(d) Evaluation of progress. Since each student's criterion for success on a task is a slightly better performance than his previous one, competition with others and all arbitrary standards are removed as bases for evaluation at Fernald. In keeping with this manner of evaluation, grades are avoided. Thus, all feedback regarding performance is keyed toward teaching the student to evaluate progress in terms of self-improvement, and the teacher generally strives to enhance each student's feelings of success through the use of frequent, honest, and sincere praise, and the occasional use of material positive reinforcers. (The elimination of grades and the use of feedback concerning performance for the purpose of guidance are procedures which have been recommended by many educators as being readily implementable in public school classrooms. The apparent simplicity of these procedures should not be allowed to belie their potential utility in minimizing repeated failure experiences and enhancing positive motivation.)

Stated differently, in the individualization process as practiced at Fernald School, today's performance in a given area provides both the basis for evaluating the student's progress and also provides the diagnostic information which is needed for designing the next phase of instruction in that area. That is, today's performance is compared with the student's previous effort in that area, and improvement is positively reinforced. At the same time, the performance is analyzed to determine basic needs, and then, the specific skills and behaviors to be learned and/or practiced as well as performance standards for the next assignment are established. In designing the program, the teacher employs sound psycho-educational principles, e.g., she plans a program which the student will view as meaningful, interesting, worthy of effort, and attainable through appropriate striving. The actual mechanics of instruction are then determined with reference to decisions (pragmatic and creative) made regarding such key classroom variables as those indicated in Table 1. At this time, of course, the most critical variable is still the classroom teacher. This emphasis on the teacher is not meant to de-emphasize the value of currently available materials and equipment; however, such devices are viewed as tools and not programs. The point here is that, in individualizing instruction, teachers much first know how to teach and then they must learn what to use and when.

Specific detailing of methodological issues related to individualized instruction is beyond the scope of the present discussion. Such details, as well as more comprehensive discussions regarding some of the changes in school and curriculum organization which are needed for successful individualization of instruction, have been treated elsewhere (e.g., Educational Testing Service, 1965; Gagné, 1967; Henry, 1962; Howes, Hunter, Keuscher, and Tyler, 1967; Rasmussen, 1964; Tyler and Brownell, 1962).

2. Student-Teacher Ratio

Currently, Fernald School classrooms are limited to a maximum of 19 students. For these students, there are an average of three or four trainees per hour participating in each classroom under the supervision of a demonstration teacher. Thus, the student to adult ratio is usually about four to one. It is important to note, however, that the majority of trainees at the Fernald School are University students in their junior and senior year and for the most part they have had little, if any, training in working with children. Thus, the ratio is slightly misleading since it is the job of the demonstration teacher not only to design the individualized program for her nineteen students and to be certain that it is carried out properly, but at the same time, to supervise the classroom training of the 15 to 18 University students who will enter her classroom over a period of a week.

3. The Fernald School Environment

Any discussion of a school's environment, other than its physical one, has to be extremely subjective and yet, since most visitors to the Fernald School have mentioned the "feeling-tone" as a most important facet of the school's impact, a brief note seems in order.

While difficult to describe in concrete terms, a general statement of the Fernald School staff's aspirations with regard to evolving a school environment which is conducive to learning should include the following elements:

The staff is committed to a persistent attempt to create an environment where the student can feel that he is a human being worthy of respect, where he will know what is expected of him and when, what is acceptable behavior and what is unacceptable, and where he can find satisfaction in learning.

In general, the atmosphere is permissive, but permissiveness is always carefully distinguished from license. For example, while a student is usually permitted a greater degree of freedom of movement than he would have in his regular school, a basic limitation placed upon this freedom is that he must not do anything which might interfere with another student's attempts to learn or a teacher's attempts to teach. Perhaps the increased freedom a student experiences at Fernald is best characterized as an increase in his range of choices rather than a general removal of restraints.[2]

[2] It should be noted that concomitant with the increased freedom and with individualization of instruction, there is a minor increase in noise level in the classroom. This is a by-product

In such an environment it is believed a student will learn and perform despite past failures and current problems and will develop into and feel he is a competent, independent individual, i.e., a person who knows how to learn, to plan, to evaluate, and to choose.

In this connection, it is to be emphasized that the program consists of more than the 3 R's and physical education. For example, over the past year, the students at Fernald have participated in many special studies and project activities, including art, music, drama, crafts, photography, science, social studies, Black History, and a variety of discussion groups emphasizing listening skills, sharing, and awareness of self and others. Such special studies and activities are intended to allow a youngster to pursue idiosyncratic interests, to succeed in areas in which he places great value, and to demonstrate to others that he has special capacities worthy of attention and respect. As one Fernald School teacher has stated: "The joy of learning is a beautiful thing. It is of major concern to us at Fernald that for the children who come to us, this joy is often something they have not experienced in their past schooling. Yet, one has only to look to find that these youngsters are full of exciting ideas and a desire to seek and to know." Our goal, of course, is to unleash this excitement and desire.

[2] (continued) of our program which produces mixed reactions among visiting educators, i.e., many, and certainly the majority, find the noise level quite acceptable and, indeed, appropriate; a few educators, however, insisting on the virtues of quiet, find this aspect of the program unattractive.

In an effort to provide a more concrete example of the types of procedures used in the Fernald School Program, we have prepared an addendum in which one youngster's program is presented in some detail. This report may be found in Appendix A. In addition, since neither the general descriptions presented above nor the facts and figures presented in the report on research findings can adequately encompass the wide range of incidents and activities experienced by the Fernald School staff and students, we have encapsulated some of the "flavor" of a number of specific experiences in Appendix B.

Over the three year period, the Fernald School Program has remained substantially the same. There have been, of course, the usual changes (in terms of upgrading of professional staff, continued refinement of basic remediation approaches, etc.) which characterize a laboratory school and which result in qualitative improvements. One example of such changes may be seen in the establishment and assignment of interdisciplinary teams to each of the classrooms. These teams, consisting of the teacher and other professionals and graduate trainees in the fields of education, psychology, and social work, meet weekly to discuss general strategies for effective and efficient instruction, as well as specific remedial plans for students. These teams have demonstrated the feasibility and potential effectiveness of releasing teachers from classroom activities for meetings with consultants, etc. The meetings have also demonstrated a way in which counselors, consultants, graduate trainees, etc., can play a more important role in the day to day operation of the classroom than they are doing presently.

B. The School Enrichment Program

Stated simply, the School Enrichment Program represented an attempt to provide a demonstration of Fernald School type instruction in several schools in the disadvantaged areas. The scope of such a demonstration, of course, had to be limited, i.e., the primary focus was on efforts to improve reading and language skills during the three to five hours per week that the Fernald School teachers were able to work with the disadvantaged students. Again, the emphasis was on individualization of instruction, and some efforts were made to provide extra-curricular supports, e.g., social work contact with families. Most other facets of the Fernald School experience, however, could not be reproduced for obvious reasons.

Since the goal of a demonstration program is to have an impact beyond the few hours in which a special teacher can work with an individual student and beyond the limited number of students who can be included in such a project, our constant concern has been with the problem of establishing an effective modus operandi to facilitate discussions between our School Enrichment Program teachers and the teachers in the schools in which the program was operating. For reasons to be discussed later, we have yet to demonstrate a satisfactory solution to this problem.

In the first year, the program essentially supplemented the regular teachers' reading lessons. The format was that of a small group tutoring program in which three Fernald School teachers each took groups of three to four students from their regular classrooms for one hour per day, three days per week. This format was found to be unsatisfactory, both from the standpoint of progress and significant positive impact on the teachers in the school. Thus, it became clear that major revisions in conceptualization and practice were needed.

In the second and third years, therefore, we requested and the schools agreed to give us total charge of the reading programs of the students participating in the School Enrichment Program. The format, which was basically the same for the two years, involved individualized instruction in a classroom framework, i.e., the teachers worked simultaneously with the entire School Enrichment group (ten students) from a particular school.[3] We felt, at the time, that having complete responsibility for the reading program would put the enrichment teachers in a better position to play a consultative role; that is, we thought that the regular classroom teachers might take the opportunity to discuss other facets of the students' program which required reading skills, thereby allowing the Fernald School teachers to present ideas regarding how individualized instruction could be introduced into the regular classroom program.

[3] In the second year, we used three teachers per group; during the third year, we used a teacher and an aide. In each instance, since we were involved with three schools, the same teaching team traveled to three different schools and taught three one-hour classes each day.

Again, a detailed example, in this case of a School Enrichment youngster's program, is presented in Appendix A to provide a more complete picture of this program.

As suggested above, despite the fact that the demonstrations were available in their own school building and despite the fact that our teachers consistently made themselves available both before and after school, we have found that, in general, the public school teachers simply do not have enough time to avail themselves of the opportunities which such a demonstration program offers. On the basis of such experiences, we have revised, once again, our approach to this problem; this new approach is discussed in a later section.

C. Videotape Recordings as a Demonstration Aid

From the onset of the project, it has been our view that videotape recordings provide an excellent opportunity for upgrading the communication of ideas related to remediation, individualization, integration, etc., by providing detailed and concrete demonstrations of specialized techniques and methods. Such video demonstrations have the same obvious benefits of film (e.g., ease of distribution, flexibility of scheduling, providing demonstrations of known quality), while being considerably less expensive to produce. Consequently, as one of our demonstration activities, we investigated the possibility of developing professional-quality videotaped demonstrations which could be made available for widespread distribution. The results of this investigation have been three-fold. We found that: (1) a major difficulty in developing professional-quality tapes was that each tape required too much of the school staff's time; (2) "spontaneous" videotapes were extremely useful in our demonstration and training activities and took considerably less time to prepare than more refined products; and (3) we came to realize that we should be demonstrating the diverse uses which can be made of closed-circuit systems in school settings.

A few comments will help to clarify each of these findings.

1. Professional-Quality Videotapes

At first, it seemed that the major need we would have in our efforts to develop professional caliber videotaped demonstrations was for someone with a sufficient degree of technical skill. Therefore, after we had finally acquired all of our basic equipment and had done some experimentation, we employed a video specialist. While this individual has proven to be an important resource, we have come to realize that the major deterrent in our efforts resided in the amount of school staff time and talent required to conceive programs and to pursue such programs through to completion. Therefore, since we could not afford to expend the type of resources which seemed to be required for this type of product, we shifted our emphasis and began to capitalize on "spontaneous" videotapes. It may be noted, however, that we have recorded a great deal of material which we plan to incorporate into distributable demonstration videotapes when time allows for such activity.

2. "Spontaneous" Videotapes

The term, "spontaneous" videotapes, relates simply to recordings of regular activities made as such activities are in progress. The preparation of such tapes has required no extra time on the part of the professional staff and generally has required little in the way of special technical skill; that is, we have found that teachers, supervisors, University students, and Fernald School pupils are all able to do such recordings.

Over the past two years, we have shown such tapes as part of our pre- and in-service training activities with excellent results.[4] In effect, these tapes have provided a detailed and dramatic audio-visual aid for use by the staff members involved in the demonstration and training facets of the project. Therefore, even though such tapes generally are not by themselves meaningful demonstrations, they have come to be an important part of the demonstration and training programs.

3. Diverse Uses of Closed-Circuit Systems

While the initial thrust of our involvement with videotape recordings was directed at the uses of television as an aid in demonstration and training, over the past few years we have explored and demonstrated the potential contribution of videotapes in all phases of a school's activities. As part of this process, we undertook the task of reviewing the literature focusing on the

[4] It is interesting to note that after viewing a spontaneous videotape of an individualized reading lesson being taught by one of our staff members, many visiting teachers have stated that this was the first time they had ever had the opportunity to sit back and watch a highly trained person teach reading to children.

experimental and practical uses of television in the field of education and in the mental health professions (Alkire, 1969; Buckheimer, 1965; Chu and Schramm, 1967; Costello and Gordon, 1965; Lewis, 1961; Lunn, 1968; Mielke, 1968; Miller, 1968; Murphy and Gross, 1967; Popham, 1966; Tyler, 1964; Walz and Johnston, 1963; Wilmer, 1967; Young, 1969; also see Appendix C). This review yielded a variety of explicit and implicit ideas regarding ways in which a videotape recording unit might be employed in school settings. By incorporating these ideas, as well as ideas derived from other programs with which we have become familiar (see Appendix D) and from our own experiences, we arrived at the categorization outlined in Table 2.[5]

In view of the fact that in recent years companies manufacturing closed-circuit systems have developed models which make such units practical for general school use, i.e., from the standpoint both of cost and technical operation (see Appendix E), it seems reasonable to anticipate that, in the near future, each school will have ready access to such a system. With planning and minimal instruction, the school staff should be able to utilize such a unit in any of the ways categorized in Table 2. For example, as with closed-circuit broadcasts, specially prepared videotapes can be used for presentation of content, technical demonstrations, etc. Such a use can span the continuum from being another audio-visual aid to being an entire course of instruction. The tapes

[5] At a later date, we plan to prepare a special report expanding upon each of the categories outlined in Table 2.

Table 2

CATEGORIZATION OF SCHOOL USES FOR VIDEOTAPE RECORDERS

I. GENERAL EDUCATION In the instructional process, videotape recorders may be used for:

- A. Audio-visual presentations
- B. Motivating pupils
- C. Feedback and evaluation regarding pupil and staff performance and behavior

II. PROFESSIONAL TRAINING (PRE- AND IN-SERVICE) In the training process, videotape recorders may be used for:

- A. Audio-visual presentations
- B. Demonstration and practice in using videotape recorders in schools
- C. Feedback and evaluation regarding trainee performance

III. RESEARCH In school-related research, videotape recorders may be used as a:

- A. Dependent variable
- B. Independent variable
- C. Tool for studying relevant processes

IV. PUBLIC RELATIONS In communicating with those outside the school, videotape recorders may be used for:

- A. Documentation of regular and special school activities
- B. Presentation of the school's problems and needs
- C. Feedback and evaluation regarding pupil performance and behavior (for parents)

might be prepared by an individual teacher, a group of teachers, a consultant, or the students in a particular school, and, as a consequence, can become highly individualized and personalized presentations. At the Fernald School, for instance, a videotaped play prepared by two older students provided an excellent and amusing lesson on the Lewis and Clark Expedition for the younger students. Not only did these two students provide a presentation which was not otherwise available, but the preparation of the tape itself was a valuable motivational experience for these two students who were not initially very interested in history. The opportunity to write and record a TV play, however, interested them very much. In the process, they learned and/or practiced a variety of school-related skills, such as reading, language, and study skills, as well as becoming involved with the history of the Lewis and Clark period. In addition, they had the important experience and satisfaction of initiating and carrying a project through to completion. And finally, they had the pleasure of seeing the younger students enjoying and learning from their project.

As this example suggests, it is not the quality of the recorded product which is important in such a use. After all, such tapes are not being prepared for widespread distribution. What is important is that such a recording can be a powerful tool which can enrich a school program in many ways. Since there are many more ways in which videotapes can be used in school settings, it becomes an important goal for a project such as ours to attempt to demonstrate these diverse uses.

II. Training Activities

In expanding our pre- and in-service training activities, we have used procedures for disseminating our views, techniques, etc., which we felt would allow for a widespread impact on the educational opportunities of the disadvantaged (and other children with learning problems). At the same time, as we have encountered difficulties in our training efforts, we have attempted to conceptualize and develop strategies which might prove to be even more effective.

More specifically, our efforts at improving the effectiveness of concerned professionals and prospective professionals who work or will be working with disadvantaged children have involved not only the provision of demonstration programs both in the public schools and on the University campus, but also the active dissemination of our views, techniques, procedures, etc., through workshops, lectures, consultation activities, and presentations at professional meetings.[6] In addition, copies of our yearly progress

[6] As examples: During the first year of the project, we initiated a program in which a group of key personnel from the Los Angeles School District were invited to the Fernald School to witness and discuss the project and the school program. These professionals included the Area Superintendent, the Supervisor of Guidance and nine principals from the Elementary Area West District, two secondary school principals, and the respective directors of special programs (chiefly Title I) for the Elementary and Secondary Schools. Also, in the first year of the project, demonstration programs were organized for twenty remedial reading teachers from schools in poverty areas in East, Central, and South Los Angeles, and for a group of some thirty-two Teacher's Aides from schools in the Long Beach area. In February, 1968, Professor Feshbach presented a paper discussing

reports have been sent upon request to the Washington Office of Civil Rights, the Teacher Corps, U. S. Office of Education, Departments of Special Education at numerous universities, and to individuals involved in a variety of programs focusing on the disadvantaged. Besides these activities, in the future, we plan to develop a series of special videotapes and related articles, as well as other descriptive materials. Such materials should allow for the wider circulation of the ideas, concepts, techniques, and materials which are incorporated in our programs.

In these diverse ways, our programs and views are receiving wide exposure among teachers, counselors, administrators, educators, psychologists, physicians, graduate and undergraduate students, volunteer tutors working currently in disadvantaged areas, and other pertinent groups. Table 3 presents the number, types of individuals, and degree of involvement of those who have been exposed to the demonstration and training activities over the past three years, and in the following sections, there is a brief discussion related to some facets of the pre- and in-service training activities, along with the conclusions arrived at on the basis of our experiences.

[6] (continued) the project at the American Educational Research Association meeting; in March, 1968, our tentative findings were presented by Dr. Adelman at the American Orthopsychiatric Association meeting; also in March, our efforts in individualizing classroom instruction were described to a group of educators (teachers, administrators, etc.) as part of a special University Extension program held in Riverside. And throughout the project, we have offered workshops and lectures, both at UCLA (day courses, evening extension courses, special workshops) and in the "field" (in-service programs, professional meetings).

Table 3

APPROXIMATE NUMBER, TYPE OF INDIVIDUAL, AND DEGREE OF INVOLVEMENT OF THOSE WHO HAVE BEEN EXPOSED TO THE TRAINING AND DEMONSTRATION PROGRAMS OVER THE PAST THREE YEARS

PRE-SERVICE

	Education	Psychology	Other Related Professions
*One-time exposure	800	500	400
Workshop-type training	60	45	15
Semester of quarter length training	525	300	100

IN-SERVICE

	Teachers	Counselors	Other Educators	Other Related Professions
*One-time exposure	500	250	200	175
Workshop-type training	125	200	75	50
Semester of quarter length training	125	20	25	30

* Does not include the number of individuals present to hear papers presented at national and local conferences, nor those who have requested copies of our reports.

A. Pre-Service

We believe that one of the most unique and important features of our training and demonstration activities has been their potential for recruiting prospective teachers of the disadvantaged. Each year approximately 300 undergraduate students, of whom 55% planned to pursue a teaching credential, had intensive field work experience at the Fernald School. In addition, each year approximately 30 teacher trainees who were graduate students in education, participated in the program, working with disadvantaged children under the supervision of the Fernald School staff. And, in another context, we were involved in the training of volunteer tutors of the disadvantaged at UCLA, San Fernando Valley State College, the International Institute of Boyle, and the Neighborhood Youth Corps.

While it is too early to determine how many of these trainees will actually become credentialled teachers and choose teaching assignments in disadvantaged schools, we believe that these individuals will be more open to such assignments and that those who do choose to teach in disadvantaged areas are more likely to continue working with "disadvantaged" populations as a result of their early training experiences.

In short, we continue to believe that such early and extensive exposure to disadvantaged children is important in recruiting teachers who will be (a) truly interested in and knowledgeable about working with the disadvantaged, (b) more effective, and (c) more likely to remain in disadvantaged area schools than teachers who reluctantly accept such assignments.

B. In-Service

As part of our in-service activities, each year, we have allowed increasing numbers of professional visitors to come to the Fernald School to observe the procedures which have been used to individualize and integrate our classroom programs. In brief, our message to these visitors has been as follows:

> "Currently, in our classrooms, students from different socio-cultural, racial, and religious backgrounds are working together in a nongraded, success-oriented environment. It is our belief that each student significantly differs from every other student with regard to rate, style, extent, and/or quality of learning and performance and that these differences are more important in determining instructional needs than differences which may exist between groups which have been labeled advantaged or disadvantaged. This belief has led us to attempt to develop effective and efficient strategies for individualizing instruction. During your visit to the Fernald School, we will be telling you more about this individualization process--why we feel it is needed, how it is being accomplished, etc."

During observations, these points were amplified, and the individualized and integrated approach being observed was contrasted with compensatory education approaches which still pursue normative instructional procedures within the framework of segregated schools.

Unfortunately, we have no way of telling what impact such a limited exposure might have had. However, we have been encouraged by the fact from five to ten visitors a year subsequently participated in one of the lengthier Fernald School-connected teacher training activities.

With reference to the School Enrichment Program, our teachers were in contact at some time during each year with all the teachers of the students enrolled in the program. The duration of such contacts, however, varied markedly. Most teachers could only be seen for a few minutes before or after school, or at lunch time, and, while some of these teachers were seen quite a few times under such circumstances, how much they gained from these contacts is unknown. A few teachers found it possible to come and observe the demonstration program and, in these instances, at least, we know that the individualization process was seen as well as discussed. Again, however, since we did not have the opportunity to observe these teachers before and after their contacts with the demonstration and training programs, we are unable to state what impact these programs had on the teachers. (Formal assessment of the impact of these contacts was beyond the scope of the current project.)

While we cannot be certain of the impact of some of our training activities, as a whole we feel we have made a significant contribution in this area. Nevertheless, we recognize that the procedures we have been employing are limited with reference to the number of individuals for whom we can provide intensive training. Therefore, we have formulated a different model for in-service training. The components of this model are presented in a later section of this report.

During the summers of 1966 and 1967 and during the academic years 1966-67 and 1967-68, a special counselor in-service training program was undertaken. This program was discussed in detail in a previous report (see Yearly Report for 1966-67, Part II). (Although this program was discontinued, we have continued to work with counselors in the schools in which we have carried on the School Enrichment Programs. In addition, project staff members have consulted with the group of counselors and specialists who are responsible for the Student Achievement Center--SAC--programs in the Los Angeles City Schools.

It is worth emphasizing that the counselor program, as undertaken during the first two years of the project, followed a model which differed in at least two major ways from traditional in-service training approaches:

(1) It was a released time program--thereby allowing the participating professionals to attend at a time when they were alert and motivated and at a time when the demonstration program was in session and could be used for observation and practicum purposes.

(2) The practicum experiences were videotaped so that feedback could be provided at a later time regarding performance.

The program was somewhat more traditional in its general acceptance of the current view of the counselor's role as a provider of direct services for the individual student and his family. Even here, however, there was an effort to explore with the counselors their potential role as a general consultant to the teacher.

As a result of our experiences with the counselor in-service program, we feel we have demonstrated that a released time model of in-service training is both feasible and appropriate.[7] However, while we were pleased with this aspect of the counselor program, we became dissatisfied with the program's conceptual base. Specifically, we came to question the meaningfulness of the goals of current counselor training programs--including our own. This question came to dominate our thinking in this area and supplanted our original interest in evaluating counselor change. Indeed, as we intensively worked with the counselors, it became increasingly evident that the effectiveness of a training program in changing counselor's views and behaviors was a secondary issue which should be pursued only after the goals of counselor training have been more meaningfully determined than they are at present.

Such goals are still being debated by concerned professionals and, as a result, like so many other facets of the educational system, the role of the counselor is in a state of transition. The need for a new role seems clear to us. The counselors who participated in this program were unanimous in their agreement that counselors cannot adequately provide large scale individual student services. Even if their training was adequate to meet the task, the numbers of students for whom they are supposedly responsible are far too large a group, and therefore individual counseling for students who manifest motivational and attitudinal problems is

[7] It should be noted that the participating schools were most cooperative and appreciative of the opportunity to participate in the program. Even the Los Angeles City School officials, who were doubtful, initially, as to the possibility of releasing counselors, became enthusiastically involved in the program.

unrealistic in the vast majority of cases. In addition, the effectiveness of individual counseling has not been demonstrated. Similarly, with regard to counselor efforts to assess individual students' needs for placement in special programs (when such programs are available), it is not clear that such efforts pay very great dividends since the appropriateness of some of these programs is still in doubt.

In view of such factors, we have come to feel that it may well be that the most meaningful and potent role a counselor can play is that of a general consultant to the teacher. It is the teacher who comes into direct contact with the students each and every day, and it is the teacher who is in need of "counseling" when confronted with atypical students--whether they are disadvantaged or fall under some other label. It is in this connection that the counselor can play a unique and, hopefully, effective role.

With the current trend in the mental health fields toward community consultation, there is ample precedent and rationale for renovation of the school counselor's role from direct service to consultation.[8] Nevertheless, it is to be anticipated that there will be resistance to such a change in conceptualization. After all, many counselors have been attracted to the field by their desire to provide face-to-face counseling and guidance for students.

[8] For a more complete discussion of the need for a new role for the counselor, see Kenneth Sanner and Rosemarie K. Moore, Elementary School Guidance: A New Approach. Mimeo, 1967, Palo Alto Unified School District, Guidance Dept., H. B. Gelatt, Director. Also: J. R. Bergan and T. Caldwell, Operant techniques in school psychology. Psychology in the Schools, 1967, 4, 136-141.

Therefore, there is an obvious need to demonstrate to counselors the meaningfulness of this new role and, consequently, in the next phase of the project, we would like to include a pilot program to determine whether counselors trained to be teacher-consultants can have a greater impact than those who pursue a more traditional role.

III. New Directions

In the light of our experiences and findings over the past three years, as well as the findings of other projects, we shall implement a number of major changes during the coming year. These changes involve major revisions in our training and demonstration procedures in an effort to expand the scope and impact of our recruitment activities and of our pre- and in-service training of individuals who will be or are currently working with disadvantaged children.

As we have indicated above, we feel we have been making a significant contribution in the area of training. However, we have also indicated our belief that our current program can only provide intensive training for a limited number of classroom teachers. And we have discussed the limitations, in general, of demonstration programs which are ancillary to the classroom, e.g., the fact that they make additional demands on a teacher's already crowded schedule. Therefore, we have proposed, and will implement, during the academic year 1969-70, a training and demonstration program, incorporated directly in school classrooms in lower socio-cconomic areas, which will have the potential for training large numbers of teachers and counselors, and prospective teachers and counselors in the use of specific methods for (1) introducing individualization and remediation, and (2) effecting significant motivational and attitudinal changes among students in disadvantaged area schools.

The Los Angeles Unified School District is again cooperating with us and the district administrators and the principals of the participating schools have all guaranteed their enthusiastic support.

A. Demonstration and Training Facets

In effect, the changes in the program for the coming year will involve the replacement of our current Fernald School and public school demonstration classrooms with a program in which we help to develop training and demonstration centers in the disadvantaged area schools. This change may be viewed as a transition toward the establishment of professional development centers as described in the Professional Development and Program Improvement Act. The development of such training and demonstration classrooms will be accomplished in two stages spanning the academic year 1969-70: (1) a program development phase (September-February), and (2) an implementation phase (March-June). In the program development phase, we will develop twelve demonstration classroom programs, three in each of four geographically-separated disadvantaged area elementary schools (two of these will be in Negro ghetto areas and two in Mexican-American areas). The teachers for these demonstration classrooms will be trained in their own classrooms during the school day and, simultaneously, the counselor in each of the four schools will be trained to provide pre- and in-service training and consultation regarding the special skills being demonstrated. In the implementation phase, we will help the schools initiate a program which utilizes these demonstration classrooms and the specially trained counselors in an effective and efficient manner to train a large number of other teachers and school personnel in the area, as well as University students in teacher training programs.

As indicated above, the skills to be demonstrated in these classrooms are (1) individualized instruction for children with learning problems; (2) the use of specific remedial techniques and procedures; and (3) the use of special procedures for coping with motivational and attitudinal problems. For purposes of training and demonstration, the focus will be on the reading period; however, it should be possible to generalize the principles which are learned to the entire teaching day.

1. Program Development Phase

The model for our training of the teachers for the demonstration classrooms involves four steps:

(a) Preliminary training (teaching of specific ideas and methods through discussion with and demonstration by teacher-consultants)

(b) Participatory training (initial application by the teacher-trainee of ideas and methods)

(c) Trial demonstration (the teacher-trainee applies what has been learned while the teacher-consultants observe and later provide feedback and possible additional demonstrations)

(d) Follow-up consultation (teacher-consultants will be available for discussion of problems including an observation and feedback session as the need arises and will also make a scheduled observation at monthly intervals during the year)

More specifically, the basic training for each demonstration teacher (steps 1-3) will be provided by two teacher-consultants from the project staff over a period of five weeks and will include the following sequence of events. All the teachers and counselors who are to participate in the program development phase of the training will be brought together at the beginning of the school year and given a general explanation regarding the program's schedule and activities. In brief, the schedule will involve four consecutive five-week training periods, i.e., five weeks at each school training three teachers and the counselor, spanning the period from September through February. This cycling of training periods will allow us to develop the training and demonstration centers sequentially, thereby reducing salary costs while also enabling us to profit from our experiences as we develop each school's program.

(a) Preliminary training (two weeks). At the beginning of each five week period, the teacher-consultants will meet with the three teachers who have volunteered to be trained as demonstration teachers and with the school counselor. The first two discussion sessions will be individullly scheduled during non-classroom hours and will be devoted to learning from each teacher the procedures she is employing currently in teaching reading to her students. Simultaneously, the teacher-consultants will observe during the reading period. Based on these discussions and observations, sometime during this first training week, one of the teacher-consultants will take over the responsibility for teaching the reading lesson. This will free the classroom teacher to meet with the second teacher-consultant for purposes of discussing the ideas and procedures which she is to learn and demonstrate. (The three teachers being trained are to schedule their reading periods for different times of the day to allow the teacher-consultants to rotate into each room. The counselor's schedule will be worked out to ensure he experiences each major facet of the training.) Training discussions will take place both in and out of the classroom so that the teacher and counselor will have the opportunity not only to see the teacher-consultant employing the special approaches but also to view videotaped presentations of specific methods, materials, etc. In addition, videotape will be used to present certain training problem situations which will then be discussed by the teacher, counselor, and consultant.

While the demonstration and training is focused on the reading period, the training is designed to teach general principles, as well as specific approaches, for effecting motivational and attitudinal change and for implementing individualization and remedial procedures. That is, the goal is to help the teacher and counselor to become more effective when and wherever they are dealing with atypical as well as average students. And it should also be noted with reference to individualization and remediation, that for practical reasons, the basic plan will be to continue teaching successful students with normative and group approaches as the classroom teacher has been doing and to individualize instruction, for the present, only for students who are performing poorly. However, it is our ultimate goal to maximize individualization of instruction for all children in the classroom, within the limits of the resources available in the school. To this end, if the schools are willing, we may attempt to remove some of the resource limitations through the use of older students, paraprofessionals, and other volunteer personnel who may be of assistance to the teacher.

(b) Participatory training (1-1½ weeks). After the two weeks of preliminary training (sooner if the teacher appears ready), the teacher will begin applying what she has learned. While the teacher-consultant continues to be responsible for teaching the reading lesson, the classroom teacher will also return to the classroom to practice the ideas and procedures she has been learning (she will function somewhat as an aide might). The second teacher-consultant remains available to provide guidance and feedback; the teacher will be free to stop after any activity and obtain such feedback.

(c) Trial demonstration (1-1½ weeks). After 1½ weeks of supervised participation (sooner if the teacher is ready), the teacher resumes responsibility for teaching the reading lesson. The two teacher-consultants will observe and videotape recordings will be made. The teacher will then meet as needed with the consultants during a non-classroom time for verbal and video feedback, questions and answers, and general discussion and, if necessary, the consultants could also provide additional demonstrations.

Thus, at the end of five weeks in one school, the classrooms of three teachers should be available as demonstration and training programs for other teachers and school personnel and, in addition, the school counselor should be equipped to help train and consult with such individuals. It should be noted that, if scheduling permits, other teachers and trainees may participate in the training program during the five week period.

(d) Follow-up consultation (once a month and as needed). Whenever there is a question, a problem, etc., the teacher-consultants will be available upon request, i.e., they will return to observe and provide guidance and feedback. If there are no requests, they will nevertheless observe and comment on the programs at least once a month throughout the year.

This, then, will constitute the program development phase. The product of this phase of the project will be the development of demonstration and training classrooms at central schools in disadvantaged areas. In the process of developing such classrooms, the project will make a number of innovative contributions. These will include demonstrating (1) a training process in which teachers are trained in their own classrooms and their programs are developed into demonstration programs; (2) a new role for school counselors--that of providing training, consultation, and "counseling" for teachers as contrasted with providing direct student services; and (3) the varied uses of videotape in such pre- and in-service training programs.

2. Implementation Phase

As indicated above, a limited number of other professionals and trainees can participate in the training process during the period from September through February. However, the greatest number of individuals who will receive pre- and in-service training in the twelve demonstration classrooms will participate in the period from March through June. These individuals will include (a) teachers and counselors from disadvantaged area schools, and (b) prospective teachers, counselors and other school personnel.

(a) Training for teachers and counselors. With the availability in the immediate geographic area of a center school with three demonstration classrooms, it will be possible for teachers and counselors from other schools in the disadvantaged area to participate and/or observe in these classrooms with a minimum amount of released time required. The availability of videotape recordings will also be helpful in facilitating such training on an individual or small group basis. And, since the center school's counselor will have learned how to help others acquire the special skills being demonstrated, he will be able to train and consult with both the teachers and counselors in the area. The two teacher-consultants will help develop effective and efficient participation and observation experiences, and to provide feedback to newly trained teachers and counselors as they initially apply new ideas and techniques back at their home schools. Ultimately, we hope that this latter function will be one which the center school's counselor can perform, and our work with these counselors will be directed towards this goal.

(b) University trainees. In conjunction with the Graduate School of Education at UCLA, we plan to have both undergraduate and graduate students participate in the demonstration classrooms. As we indicated earlier, while it is not possible to predict how many of these individuals will choose teaching assignments in disadvantaged areas, we believe that such exposure to disadvantaged children is important in recruiting teachers who (1) will be truly interested in and knowledgeable about working with the disadvantaged, (2) will be more effective and (3) will be more likely to remain in disadvantaged schools than teachers who reluctantly accept assignments in the area. In this connection, too, we will attempt to involve other undergraduates who are not prospective teachers in the belief that early and extensive exposure to disadvantaged children may lead some of these individuals to choose a teaching career.

As in the past, we will also continue to pursue our other training activities and means of disseminating our ideas and procedures with regard to the disadvantaged (and other children with learning problems). That is, we will continue to offer workshops and lectures both at the University and in the "field"; we will continue to write and circulate reports, papers, articles; we will expand our efforts with regard to developing videotapes to be used in training programs; and we will continue to work with volunteer tutors who are teaching disadvantaged children.

B. Research

The change in the nature of the training and demonstration facets of the project results in a major revision of our research activities. The design and procedures are described below.

The basic design will encompass 24 teachers and the students in their classrooms; twelve of these teachers will receive special training, twelve will not. All of the classrooms involved will be equally divided over four geographically separated low income area schools. The twelve teachers in each group will be chosen as follows: (1) At the beginning of the school year, each of the four participating schools will supply a list of volunteers, all of whom must teach regular full-day classroom programs. (2) From each school's list, six teachers will be selected randomly, with the first, third, and fifth choices being assigned to the training program in that school.

For purposes of evaluating the effectiveness of the training program, the following tests will be administered to the children in both the training and the control classrooms at the beginning and again at the end of the school year:

1) achievement testing
2) perceptual-motor testing
3) Test Anxiety Scale for Children

In addition, ratings of the nature of teacher and student interactions before and after teacher training will be made. This will be accomplished by having raters observe and evaluate videotape recorded samples of the reading period made just prior to training and one month after the five week training period ends.

Other possible sources of evaluative data with regard to both the children and the teachers are:

1) changes in attendance patterns--We will compare the previous year's records with the "training" year's attendance, as well as analyzing the pattern throughout the year with reference to attendance before, during, and after teacher training.

2) changes in grading patterns--We will analyze grades in the same manner as the attendance data. (We recognize that this measure and others directly dependent upon teacher evaluation may be subject to a "halo" effect and related sources of bias.)

3) miscellaneous behaviors--We will attempt to extract from various records and anecdotal sources changes with regard to positive and negative involvements at school and elsewhere.

We will also collect basic descriptive data from school records and any other available sources in our continuing efforts to explore those individual differences which are related to success and failure in compensatory programs.

Finally, we will pursue a number of process studies related to the training procedures themselves.

In general, then, we plan to initiate a training process which will (a) develop classrooms where teachers demonstrate the special skills described earlier and (b) develop a mechanism by which pre- and in-service training can be carried on in the disadvantaged area schools by the schools' personnel themselves. Thus, the initial twelve demonstration classrooms are the foundation on which a training program can be built which has the potential for making a substantial impact on recruitment and training. In addition, the training and demonstration facets of this project will have important implications for subsequent activities aimed at evolving professional development centers under the Professional Development and Program Improvement Act, and the research findings should contribute to the clarification of issues which must be dealt with if we are to optimize the educational opportunities of disadvantaged children.

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APPENDICES

Appendix A

SOME NOTES ON THE REMEDIATION PROGRAMS

The basic framework for the remediation programs at both the Fernald School and the public schools ("School Enrichment Program") has been presented on pages 2 through 15 of this report. The present discussion is intended to provide a somewhat more detailed description of the remediation procedures used in these two programs.

The Fernald School Program

As has been presented in the main report, it is our view that the keystone to effective classroom teaching is individualization. By the very nature of the individualization process, no two students' programs will be the same; therefore, the following presentation of one youngster's program and progress is offered only as an example of the process.

At the outset, it should be noted that while this particular boy has come from a disadvantaged background, this factor was of little consequence in the formulation of an appropriate educational program. Since a major factor of individualization is the matching of the task to the student, there is no difference in process. That is to say, the teacher still has to assess each boy's strengths and weaknesses, likes and dislikes, etc., and provide a program which is meaningful and interesting to him. Thus, if any differences between the educational programs for the disadvantaged and the advantaged students existed, these differences were most often qualitative differences in choice of content in reading and writing assignments and not differences in technique. This is not meant to suggest that there were no differences from an administrative point of view (e.g., bussing problems, difficulty in maintaining contacts with parents, etc.) or from the point of view of social integration (e.g., overcoming initial wariness between the two groups). The point is that after the initial problems of readjustment had been overcome, our teachers found no need for changing their classroom structure or approach, and it is our belief that no such changes are needed if an educational program is truly individualized.

Jeff is a Negro boy from the Venice area of Los Angeles City. He was thirteen years old and about to enter the B-8 grade when he was admitted to the Fernald School's full-time remedial classroom program. On the basis of information from his home school, Jeff appeared to be a boy of low average intelligence with basic skills, especially in the verbal area, in the 2nd and 3rd stanines.

Assessment. At the beginning of the school year, the California Achievement Test was administered to all Fernald School students; Jeff's grade-level scores were as follows:

Reading Vocabulary	6.4
Reading Comprehension	6.5
Arithmetic Reasoning	6.1
Arithmetic Fundamentals	6.3
Mechanics of English	6.6
Spelling	5.1

In addition to showing that Jeff was two to three years below grade level in these basic school skills, the teacher was able to use the test diagnostically as an aid in pinpointing some of his strengths and weaknesses. With this initial data, she was able to plan a preliminary reading, math, and language skills program.

At first, Jeff was resistant to coming to the Fernald School. He missed his regular school, He was reluctant to accept help, insisting, for example, that he could read well enough. In general, he was unwilling to reveal any weaknesses. He was also something of a classroom behavior problem--calling out in class, wandering around the room disturbing others, throwing things, etc. (This pattern of behavior had been displayed in his former school as well.)

Jeff's overall classroom attitude and behavior led his teacher to request additional assessment data early in the school year.* A number of formal and informal assessment procedures were administered in an effort to formulate an appropriate overall treatment plan for Jeff. In general, such assessment is concerned with an individual's performance in a number of key areas, e.g., sensory acuity, perceptual and motor skills, language, higher

*In most instances, when a Fernald School teacher is having difficulties with a student, she will discuss the problem with the Teaching Supervisor, since this person is her direct supervisor. (The Teaching Supervisor has had extensive experience in dealing with classroom problems and is aware of an even wider range of remedial techniques and materials than our teachers.) If the problem presented is very complex, any number of other staff members may be involved, e.g., psychologists, social workers, and other professional consultants.

cognitive processes, social-emotional functioning, and basic school skills. This assessment is accomplished over a period ranging from six to eight hours of individual testing.

On the basis of prescreening, it was determined that there were no gross deficits in auditory or visual acuity. More refined tests to assess acuity functions would have been administered if observation and performance of Jeff's functioning had indicated a need.

His scores on perceptual-motor tests also indicated normal functioning in these areas. (The tests administered included the Frostig Developmental Test of Visual Perception, Bender Motor Gestalt Test, and the Wepman Auditory Discrimination Test.)

The Wechsler Intelligence Scale for Children (WISC) was administered. As his school records had indicated, Jeff was found to be functioning in the low average range in terms of overall IQ score. However, analysis of the subtests pointed to the fact that, despite his generally poor performance on tests requiring verbal ability, he performed well on the arithmetic subtest (indicating ability in a complex skill) and surprisingly high on digit span (indicating good short term memory).

Finally, while no severe social-emotional problems were noted, the testing did point to a number of problems in this area, e.g., poor knowledge of social expectations and inappropriate interpretation of social situations.

On the basis of this testing and the previously noted achievement test battery, it was decided that the emphasis in

Jeff's program should continue to focus on strengthening his basic school skills, but in addition, it was felt that supportive counseling might prove to be an important adjunct to the overall treatment plan.

Thus, it may be seen that the primary impact of the additional assessment data requested by the teacher was twofold: (1) it provided the necessary data for deciding whether or not the overall treatment program should be expanded in its scope, and (2) it pinpointed a number of specific strengths and weaknesses which allowed the teacher to plan her remediation program in greater depth. As will become more apparent from the review of Jeff's program and progress, however, assessment did not end here. Assessment at the Fernald School is continuous; successful individualization requires constant evaluation of what the student has learned and reformulation of the program with emphasis placed on different subskills as the need arises.

Remediation. Specifically, Jeff's program was designed to strengthen (1) his reading skills, with emphasis on vocabulary, comprehension, and speed; (2) his mathematical skills, emphasizing both reasoning and fundamentals; (3) his language skills, with special attention devoted to written expression, mechanics of English and spelling; and (4) his study skills, focusing on general organization, use of references, and special techniques for effective and efficient independent study. In addition, efforts were made to increase his confidence and to help him develop a more positive attitude toward learning by involving him in numerous and frequent success experiences in the classroom and on the playground, as well as through his counseling experience.

As mentioned above, certain negative attitudes and behaviors were evident at the beginning of the year. It should be noted that this pattern was not unique to Jeff nor to the disadvantaged youngsters in general; it is a pattern which we see often among students who have had frequent academic failures. A number of strategies have been found to be successful in counteracting this pattern. In this instance, Jeff's teacher chose to invite the class members to formulate their own rules of behavior and to assist in their enforcement. This strategy and the increasing number of successful academic experiences led to a notable improvement in the behavior of Jeff and his classmates.

The following is a brief summary of Jeff's program and progress:

1. Reading--To help overcome Jeff's initial resistance to accepting help in the reading area, extensive use was made of some of the machines which were available, since he showed a particular interest in such devices. He was especially enthusiastic about the tape recorder and tachistoscope and responded to suggestions as to how he could use them to improve his reading. At the same time, he was introduced to high-interest, controlled vocabulary reading materials, such as the Scott-Foresman adaptation of The Adventures of Huckleberry Finn and to such programmed

materials as the Science Research Associates' Reading Laboratories.[*] The criteria used in selecting this material were that it was at his functioning level (sixth grade); that it was interesting to him (motivating); that it provided a meaningful framework for teaching and improving needed skills; and that it allowed him to achieve immediate success in reading.

As the year progressed, the level of difficulty of the material increased, and by mid-year, Jeff was reading some materials, e.g., the Readers' Digest Skill Builders and Science is Explaining, which are on an eighth grade reading level. Both his vocabulary and comprehension improved markedly. He became particularly adept at determining meaning through the use of contextual clues even when he could not read specific words in a passage. With increased skill, he became more motivated and often tried to help his peers to understand reading material. He was still sensitive about his reading deficiencies, however, and he was encouraged to continue using the machines since such work was both non-threatening and positively reinforcing to him. During this period, he worked on the Controlled Reader, which is a film-strip projector with a pacing device incorporated into it. Since he wanted to improve his reading speed, his work in this area was strongly motivated and he attained a working rate of 250 words per

[*] While a number of specific materials are mentioned, it should be noted that there is a wide range of commercial and teacher-made materials in use at the Fernald School. The materials which are referred to in this report are only those which were chosen as appropriate in meeting this student's needs.

minute with 80% comprehension on reading material which was slightly below his final functioning level.

By the end of the year, Jeff had made good gains in the reading area, not only in terms of basic skills, but perhaps more importantly with reference to his attitude toward reading. This was reflected in the fact that not only was he reading in high interest materials, but he was spending a considerable amount of time reading in content areas, in such books as Government of a Free Nation, General Business of Everyday Living, All About Biology, etc.

2. Mathematics--While Jeff's achievement test performance indicated certain deficiencies in arithmetic functioning, in view of his relatively good score on arithmetic in the WISC, he was put into a small group with boys who were working on "new math". He showed good progress and soon had a grasp of algebraic concepts. This success experience was in marked contrast to the many failures he had previously encountered in the math area, and he showed an evident relish in his new-found mastery. The teacher was able to capitalize on his enthusiasm in this area to improve his performance in the area of math fundamentals. One effective technique used to encourage him to practice his basic multiplication and division facts was to teach him to multiply and divide on the slide rule. He took such great pride in this newly acquired skill that he began to show his peers how the slide rule worked and in the process practiced his fundamentals. As the year progressed, additional exercises were incorporated into his program, and as he acquired

the needed basic skills, homework was initiated to reinforce learning through practice and to provide a framework for emphasizing care and accuracy in independent performance.

As in the reading area, progress was reflected in both improved skills and attitudes in the area of math.

3. Language Skills--It rapidly became evident that this was one area where Jeff felt comfortable and successful. He was always willing to write. He wrote on a variety of topics, and although his sentences were very simple in structure, they were communicative and meaningful. The teacher was able to use his written products diagnostically and soon evolved a program which included encouraging Jeff to write more complex sentences and longer stories, as well as to improve his capitalization and punctuation. One strategy which proved to be very successful in eliciting greater length was to have Jeff dictate his stories into a tape recorder before putting them on paper. Capitalization and punctuation were taught by focusing on his most basic needs, as reflected in his daily compositions, and teaching one or two skills at a time. All new skills, concepts, and rules were reviewed periodically and retaught whenever necessary.

It was discovered that Jeff understood the basic mechanics of English fairly well, but simply did not know the labels (e.g., subject, predicate, preposition, etc.) and therefore steps were taken to remedy this situation.

Jeff was found to retain new spelling words quite well. In order to make his spelling list as meaningful as possible, the words were selected from those he was trying to use in his compositions. This proved to be quite successful since, in writing his compositions, Jeff was quite willing to ask for new words which he could not spell. As the year progressed, it became evident that some of his spelling difficulty was due to his difficulty in associating particular combinations of sounds with their corresponding letters, and therefore some phonetic work was instituted. Since Jeff had a particular liking for machine work, the Language Master (a machine which is designed to facilitate individual instruction in word analysis skills) proved to be an appropriate and effective tool in this connection.

4. Counseling--Jeff met once a week for an hour with a psychology trainee for several months. The goals of these sessions were to help him learn to cope with classroom demands in an appropriate manner, to gain greater competence in dealing with social situations, and in general to facilitate a number of attitude changes. It is our feeling that these sessions did contribute to the positive changes noted above.*

*It should be clear that it is very difficult to separate the factors which lead to successful remediation at the Fernald School. In most cases, there have been varying degrees and and modes of staff involvement, beginning at the time a student is considered for admission and continuing throughout his enrollment. For example, each teacher is observed and many suggestions are made regarding her overall and individual programs. Nevertheless, every teacher has a good deal of freedom in shaping her program as long as she works within the framework of the school's general philosophy. The teacher, the teaching supervisor, the trainees, the counselor, the social worker, the psychologist, all play an integral role in the remediation process, although their degree of participation and its impact will vary with each child.

In summary, then, Jeff's initial resistance to receiving remedial assistance diminished as the year progressed. He became more involved in his school work and with his classmates. Although he still missed his regular school, he appeared to be reasonably happy. As Jeff himself stated in a counseling interview, he felt that he was receiving more help at the Fernald School than would have been available to him in his regular school.

At the end of the school year, the California Achievement Test was administered again. Jeff's grade-level scores and overall gains were as follows:

	Score	Gain
Reading Vocabulary	8.8	2.4
Reading Comprehension	7.0	.5
Arithmetic Reasoning	8.3	2.2
Arithmetic Fundamentals	7.4	1.1
Mechanics of English	7.8	1.2
Spelling	8.1	3.0

One final indication of the attitude change which had occurred over the school year was Jeff's acceptance of the idea that he should do some work over the summer to keep up his skills. His teacher provided him with specific tasks in mathematics and English and encouraged him to pursue a variety of reading materials during the summer. Thus, while Jeff's skills were not quite up to grade level, he had made significant skill and attitude gains which made it possible for him to continue to help himself to improve.

The School Enrichment Program

As stated in the main report, the purpose of this program was to improve the educational and psycho-social functioning of a group of disadvantaged students who remained in their regular schools. While comparative group averages reflect the program's difficulty in meeting this goal to the degree desired, there were many youngsters whose achievement scores and daily performance indicated that they had profited greatly during this year of individualized remedial instruction. For the following example, we have selected such a youngster. While he made better gains than many of the others in this program, he is viewed as being typical of the others with regard to background and behavior.

George is a Negro boy from the "Inner City" area of Los Angeles. He was eight years and eight months old and entering the fourth grade at the time he was enrolled in the School Enrichment Program at the 37th Street Elementary School. As in the case of Jeff (discussed above), George met the basic criteria for inclusion in the project, i.e., average intelligence, retarded school skills, etc.

Assessment. At the beginning of the school year, the California Achievement test was administered to all School Enrichment students. George's grade-level scores were as follows:

Reading Vocabulary	2.0
Reading Comprehension	1.6
Arithmetic Reasoning	2.3
Arithmetic Fundamentals	1.8
Mechanics of English	2.7
Spelling	2.2

In addition to showing that George was 2 to 2½ years below grade level in these basic school skills, the test was used diagnostically as an aid in pinpointing some of his strengths and weaknesses. Where there was still some question regarding a specific reading skill, the Quick-Scoring Reading Grade Placement Screening Test, the Sunnyvale School District Group Phonics Test, and an oral reading session were helpful. While additional assessment data might have been of some aid, it was not viewed as necessary in planning a preliminary basic skills program.

Remediation. At the onset of the class, George's program was designed to strengthen: (1) his reading skills, with an emphasis on phonics, vocabulary, word attack, and comprehension; (2) his language skills, with special attention devoted to written expression, and spelling; and (3) his study skills, focusing on general organization and techniques for effective and efficient independent study. In addition, as was the case with all the youngsters, efforts were made to increase his confidence and to help him develop a more positive attitude toward learning by involving him in numerous and frequent success experiences in the classroom.

The following is a brief summary of George's program and progress:

Initially, George was quite co-operative and appeared content with the program. However, after about two weeks, he indicated that he no longer needed to come and became resistant to the program when he was told he had to continue.* His behavior ranged from loud outbursts and jumping around at his desk to refusing to speak and/or loud sobbing. He began to cheat on spelling quizzes, hide and/or tear up assignments. In addition, some racial feelings surfaced at this time; George began to question the teachers' motives in coming to the 37th Street School and whether or not white people were fair and could be trusted.**

George's regular classroom teacher was alerted to these feelings, and it was agreed to make an effort: (a) to help the boy develop some feelings of trust for white teachers and (b) to help him develop stronger attachments to those classmates who might provide a positive model for school behavior. To this end, greater emphasis was placed on providing him with positive support, on being attuned to his feelings, and on providing him with opportunities to have positive contacts with his peers. In addition, a short conference was held with him each day to discuss his goals,

*This negative attitude was characteristic of his regular classroom attitudes. Apparently, the newness of the situation delayed the appearance of this negativity.

**On a field trip to UCLA, George appeared to be, and verbalized that he felt, uneasy "seeing so many white people at once." At that time, it was discovered that his family does not have a car and, as a result, his travel had generally been restricted to walking in the Negro section of the city.

progress, and feelings, and this proved to be a good mechanism for developing a more positive relationship.

After a week or two, changes were noted. His behavior became less deviant. He appeared to be resigned to participating and attended regularly. Then, he gradually began to develop a positive attitude towards the program and his behavior became consistently appropriate.

With these positive behavioral and attitudinal changes, it was possible to focus more successfully on his academic skills.

1. Reading--George was given extensive practice in the consonant sounds. He quickly mastered the beginning and ending sounds and, with extra drill, became accurate on the middle sounds and then moved on to the basic vowels and blends. He did well on the long sounds; however, his accuracy with the short sounds of e, i, and u was spotty when the word was out of context. In context, his accuracy improved considerably. The final part of his phonics program dealt with two and three letter combinations. He did very well on the beginning sounds and fairly well on the ending sounds of two and three letters. At the end of the year, he was reviewing the end sounds and receiving instruction and drill on the middle combinations. In individualizing his program in this area, lessons and practice activities were extracted from such sources as the Universal Workbooks in Phonics, Grades 2B, 3A, and 3B; Building Reading Skills Workbook, Jet Plane Book; Flash Cards; and parts of Correction of Reading Difficulties Through Prescriptive Teaching.

These sources were combined in a variety of ways so that George was provided with both independent and group oral, listening, and written experiences.

His principal gain in the word attack area was learning to apply syllabication rules to his reading. Much the same approaches were used as was described in the phonics section. George also worked with prefixes, suffixes, contractions, plurals, rhymes, synonyms, homonyms, and opposites. While he would make some careless errors in his written work, the application of these skills to his oral work resulted in significant improvement. In this area, his work was extracted from such sources as Word Building, Ideal; Ditto Directed Study Lessons, Ditto, Inc.; and Building Reading Skills, Jet Plane Book.

His vocabulary words came from his compositions. In writing, when he came across a word he couldn't spell, the word was given to him and it became a part of his spelling and vocabulary lists. The word was then read in context on at least three separate days. A review of this entire list was conducted each Friday. George worked hard at this and took pride in the fact that he learned over three hundred words.

In spelling, he was equally successful. At the close of the year, he had 333 spelling words in his spelling book. He took a spelling quiz every day and took the same words until he had spelled them correctly on three consecutive days. He began by taking four words a day and finished the year with twenty-five words on his daily list. He was inspired by seeing his ability improve. As a result of his success in this area and the constant success of his vocabulary work, his attitude toward the class and his daily work became consistently positive.

George was allowed to select his reading books from a variety of high-interest, controlled vocabulary readers. He read orally and silently from them each day. His comprehension was generally checked orally by the teacher. Sometimes he was asked to answer written questions, but this was rare since he was doing a large amount of writing in the other parts of his program. In addition, it was felt that the oral checks resulted in George having a better feeling about the reading assignments and getting more enjoyment from his reading experiences. Sometimes stories were read to him and he was asked to respond orally to check his listening and comprehension skills. He was the least enthusiastic about this part of the program. However, by the end of the year, his gains in this area were equal to the others. He began to select books that were closer to his level of difficulty. His range for the year was from the Dr. Seuss Series to the Dan Frontier Series, i.e., he read books from pre-primer, first grade, second grade, and third grade levels.

2. Language Skills--Twice a week, George was asked to write a short story. This established the spelling and vocabulary words for his lists. In addition, efforts were made to improve his punctuation skills and descriptive ability. His motivation to put forth his best work varied throughout the year. Usually he wrote at least one quality story per week. The principal gains were in capitalization, end punctuation, and paragraphing.

3. Study Skills--George's work habits and organization improved greatly during the year. He moved from working with close supervision in directed lessons to being able to work independently for up to 45 minutes. This required him to change activities on his own and to follow written directions.

He began to take a great deal of pride in his materials and in the storage and filing of his work. At every possible opportunity, he wanted visitors and other students to look at his work and records to see how well he had done.

Instead of the frequent sulking and occasional tears, we began to see a smiling face and discovered that George had a rather keen sense of humor. The success and feelings of competency he achieved are seen as primary factors in bringing about this change in behavior and attitude.

In summary then, George's initial resistance to receiving remedial assistance in the School Enrichment Program diminished as the year progressed. As a matter of fact, after he changed classroom teachers at the end of the first semester, he began to voice preference for the enrichment class over his regular classroom. He sometimes asked if he could stay longer each day and wanted to continue in the class next year.

At the end of the school year, the California Achievement Test was administered again. George's grade-level scores and overall gains were as follows:

	Score	Gain
Reading Vocabulary	3.6	1.6
Reading Comprehension	3.3	1.7
Arithmetic Reasoning	3.3	1.0
Arithmetic Fundamentals	4.4	2.6
Mechanics of English	3.8	1.1
Spelling	4.1	1.9

A conference with his mother was held at the end of the year and there was agreement that George had made significant progress in his skills, confidence, and attitude during the year. It was recommended that he continue to obtain reading instruction outside the classroom next year so that similar improvement could place him at grade level. In the past, 37th Street School has had six reading teachers offering such programs; however, because of budget problems in the Los Angeles City Schools, it was impossible to determine what would be offered next year. At the very least, it was felt that the mother and/or the school could receive tutoring assistance from such volunteer groups as the University of Southern California Tutorial Project. Such tutoring would make it possible for George to consolidate the gains he has made and to continue to build needed skills.

Appendix B

SCHOOL IS MORE THAN THE 3 R's

In reports such as this, programs tend to be described in terms of broad descriptions of process and content, i.e., with reference to teaching the 3 R's, or in terms of progress as reflected in achievement tests. The fact is that the whole school day is not devoted to the 3 R's, and it seems likely that the difference between one school's success and another's failure in reading, writing, and arithmetic stems, in part, from the variety of other positive and negative experiences encountered at school. It is our intention, here, to encapsulate the "flavor" of some of the experiences encountered by the disadvantaged children who were bussed to Fernald.

Creative Writing

Scores on the language section of the California Achievement Test reflect only a youngster's functioning with regard to the mechanics of English (grammar, punctuation, and capitalization) and spelling. This is, indeed, unfortunate since so many of the Fernald School students have participated in, enjoyed, and have shown marked improvement in a variety of creative writing activities. Some examples, from both disadvantaged and advantaged youngsters, are presented below. We have found that it is very difficult to differentiate, qualitatively, between the two groups and, to demonstrate this point, we have not attached identifying labels to these examples. A key to each writer's background (advantaged or disadvantaged) is found on page 15.

Poetry

On Love:

Love can only be beauty - it can only be
something fantastic and although we
think there is no more love, it is still
there - in the comic strips on Saturday
when we used to watch cartoons all morning long.
And then we'd go out and play some war type game,
but only we would never die and we would always
be friends.
Love is something you can't take away from the
world, if worse comes to worse, we'll have
to take the world away from love.

14 years old

A man can have big cars and houses
And lots of money
But love is not cars, houses, and money
Love is just a kindly affection for
each other.
Love is not a person's appearance
And not marrying someone for
their money and social position
But love is just loving someone for
what they are.

14 years old

On War:

WAR is violence
WAR is sickning
WAR is starvation
WAR is the Devil himself
WORLD WAR I - WORLD WAR II -
KOREA - VIETNAM - ISRAEL-ARAB
WHAT NEXT WORLD WAR III or IV?
HAVE PEACE IN THIS WORLD
PEACE IS ALL WE NEED.

14 years old

Triumphant dead laughing at
The wounded living.
Silent losers hating the
Boasting winners.
While homeless land is
born from life
And the powerful gain, - and
The weak suffer.

16 years old

Don't look now but there's a war
Behind your door
It's best to think fast
Or you'll be gassed
This ain't World War I, II, or III
This here war involves yous'n and me
It's called Watts, Century Plaza, S. F. State
Not excluding violence, Communism, or Hate
So watch out people you're endangering your own,
There's a war to be fought and it's right here -
At home.

16 years old

Fighting for something -
Killing and shooting another person.
A Battle for life or death.
A gun in your hands, and the only words
you remember, 'Kill or be Killed.'
Ducking and dodging bullets, grenades
and bombs of the Enemy.
Waiting for your name to be called to leave.
War means to pray that you don't get hurt.

14 years old

On the assassination of Martin Luther King, Jr.:

Free at last, a dream
now passed, because of
Human Nature.

Snuffing our riots and
teaching how to cool-it
But King got repaid by
A bullet -

It may have stopped
His physical motion
But I still have a
Non-strange notion
That his words and
Thoughts cannot die,
We just can't see him
with our eyes.

16 years old

Non-Violent
Born Freed
Fought for Right
Fought for those not Freed
People Believed his Dreams
Won Nobel Peace Prize
Fought against Poverty
Fought for a Better World
"How to fight for Peace":
Words, deeds, actions, does not
Hurt, Does not Destroy and
Does not Kill

"Free at Last, Free at Last,
Great God Almighty, We are
Free at Last!"

14 years old

A dream is something you see,
Something you wish for, that often comes
true. I have dreams, dreams that I wish
to come true. Martin Luther King Jr. had
dreams, dreams he wished to come true.

14 years old

He traveled throughout the country...
Where no-one dared
To talk of freedom....
to people who cared
The bigots, the racists pulled the trigger today
not just the one man, James Earl Ray.....
He had a dream that could come true....
A dream for me.... a dream for you......

16 years old

On the Flag:

The flag is red, white, and blue.
There was a flag for all of us,
   but now there is a black flag
which the Black People support.
They salute their flag in a different
   manner than the Whites.
Freedom is what we want.

14 years old

Every nation has a flag and the
   people from that nation honor it.
People from the United States
   honor the red, white and blue.
We are proud to see it waving
   in the breeze and watching it
ripple in the air and proud to see
   it stand on top of the flag pole
that we think represents our nation
   under God.

14 years old

The flag is a drag
Some people think it's
   bad
But I think it's sad.

14 years old

A representative of the Conntry.
A symbol of Peace and freedom for
   everyone
A symbol which stands for the
   republic
A symbol for one nation under God
A symbol which stands for liberty
   and justice for all.

14 years old

On City Life:

CORNER

I look across the street, and some-
   body's tearin' up a book
I feel the pages bleed
Knowledge being torn limb from
   limb
Deprivation sets in as the Ghetto
   watch the pieces fall.

16 years old

CROWD

The everyday calmness
  of an every day
A burst of excitement
A rumor circulating
Whisper, Whisper, WHISPER

15 years old

BASKETBALL

The ball splashes and springs
Scrapes then hesitates
And exasperates in suspense and
   surprise
Then leans and lands then dies
Right in front of your glowering
   eyes.

14 years old

CORNER

A cop sitting in his car
   waiting for trouble
Cars passing slowly, some
   rapidly.
The light changes, the cars
   stop.
Cars waiting,
The light changes,
Cars go,
A cop is out of luck.

14 years old

Thoughts and Moods:

THOUGHTS

His thoughts, they may be
Foolish, But to others
They may seem just right.

Consider the source in which a large
Force of controlling
His actions is found.

His mind is his Kingdom,
His food and his life
And within it, he can cause a bad inner strife.

But all inside his
Kingdom where mighty
Brainwaves howl, if he knows just
What is right, he'll never run afoul.

16 years old

MOODS

ALONE - Being in a room with nobody there.
Being alone by yourself is good
You just wander off in your mind
and think of the wonderful things
in life.

PEACE - There is no violence in the world.
You are asleep, not worrying about
the problems facing the world today.

FRUSTRATED - With the violence in the world today
Why can't men of all nationalities accept
each other as equals?
With poverty and people starving all
over the world.

WAR - Killing off the human race just for power
Killing people for no good reason.

RIOTS - People destroying what is not their own.
People stealing and breaking into buildings.

14 years old

MOODS

Moods, two classes, good and bad.
Moods can be carried out by a thought
   you just had.
Moods, sometimes they can be sad
Moods, when you have them can drive your
   friends mad.
You get moods when you can't dig a fad,
And you also use another one when your
   head gets glad.
But still there's another one you do use,
And it's the most common when you're kicken the
   blues
Your dad has some when he's hitting the booze,
And so does your mom when she's taken a snooze.
Your sister has moods with joy uncomprehendid
And source, of course, was a boy apprehendid.
Brother has a mood that makes him feel fine,
It is fired by a receipt for a 489,
Stick shifted, speed burning, bad mother car.
I hope his mood doesn't take him too far.

16 years old

SUCCESS

Success is sometimes a mess
   that gets you depressed,
That makes you want to rest
And gets on your nerves,
So you watch the birds.

14 years old

LONELINESS

Joe Maxwell
Got up this morning feeling good
And just as he stepped out the door
And was headed for work
He thought about his wife
And how she reacted to their divorce
She felt lonely
And so did he
And he still does
He and she are lonely
They feel for each other
This is loneliness
Two broken hearts that long for each other.

14 years old

LIVING WITH PARENTS

Living with parents is fun you see, forgetting all
they do to me
They pull my hair they rip my clothes they burn my
beads up in a stove
But when Mommy and Daddy have a fight it's such
an awfully lovely sight
I learn some words, they may not be right but then
I use'm in some of my fights
It sounds pretty wild but it's all true so don't
be afraid if I set fire to your shoe.

16 years old

I

I am an am if I am.
I am an am
Because I said I am.

7 years old

THE HARBOR

One day I went to the harbor
And saw a ship.
It was white and blue.
Big ships have propellors,
And little ships have motors.
I like ships.
I went to the harbor.

8 years old

SCHOOL

I am at school.
The grass is green.
The sky is blue.
The trees are high.
The leaves are green.
That is our school.

9 years old

FOLKS

Little folks, big folks, and medium folks.
Folks are a pain in the neck.
Little folks blow away in the wind.
Big folks bump their heads on trees.

8 years old

WIND

I was walking down the road,
And I was taken by surprise
By the lovely pair of eyes
Of the wind.

10 years old

BUTTERFLIES

Butterflies always appear during spring.

I had a butterfly in my hand.
It was a black butterfly.
I caught a butterfly in a jar.
I caught a butterfly with my
Bare hands.
Butterflies are beautiful.

9 years old

ME

Hi, I am me.
What am I? I am a boy.
Why am I a boy?
I like me.
I am good.
I am great.

8 years old

Essays

THE LIAR

A long time ago in merry old England there lived a boy named Sir Stephen III. People in the village said he was a Liar. Once a man said, "He broke my window and told his father King George that I whipped him and I got 20 lashes for it as he laughed." A woman said, "He threw a pot at me, and I got the ducking stool." A child said, "He pushed me in some mud." Everybody in the village said something about him because he lied. One day a little leprechaun came into the village. Sir Stephen III saw him. He ran home and told his father about him. He said, "The little man ran into the village and released all the prisoners." He was lying, but when King George looked out the window he saw the prisoners running for dear life. The leprechaun did not do it - Sir Stephen III did it. Three minutes before the little man came, he let them go. The man was captured and put in the dungeon. Sir Stephen III laughed his head off. Lenny the Leprechaun put a spell on Stephen III (it would make him tell the truth when ever he did something bad.) The next day Sir Stephen III burned down Mr MacMiller's barn and then ran to tell King George a lie. He couldn't help from telling the truth. He was given a spanking and punished for two days. After his punishment he did something real bad he destroyed Mr Johnston's farm, he told the truth again. In fact, he told about the window, the pot, and the mud and everything he did wrong. King George was furious. He punished Sir Stephen III for 29 years. Thereafter there was truth in the kingdom for ever. And the leprechaun was released.

14 years old

Good-bye is a cry from a man falling down a cliff. Good-bye says someone, who has lived in your house for the past two days, won't come back. Good-bye is a saying you use when you are about to clobber a guy through the wall. Happy to say good-bye to the old hag and pray to make sure the old hag won't come back again! Good-bye is when you are on a speedboat and you find yourself without an engine and sinking. And good-bye is when this is the end. Good-bye.

15 years old

What would happen if everyone
in the world were suddenly to
become deaf?

June 5, 1968 a strange woman stopped me on Hill Street to ask me the time. I replied, "Five minutes to 11:00." She then said, "Just five more minutes." I said, "Five more minutes for what?" She said, "You'll see, you'll see." And right before my very eyes she disappeared.

I then ran, I told people in the neighborhood, but no one believed me. I looked at my watch. It was 11:00. I could not hear the cars anymore. I thought of what the strange woman had told me. I went back on the corner where I saw her and there she appeared. Amazing I thought. I asked her, "Why can't I hear?" She said, "I have turned the world deaf. You are the only one that can see and hear me." "But why?" I asked. "I go from planet to planet doing this for fun, it only lasts a few minutes." I shouted, "Hey, I can hear again!" "See, I told you. Bye now, I am on my way to Mars, but I'll be back another time."

I went back home, my mother met me at the door saying, "Where have you been and why didn't you answer me when I called, and don't just stand there come in here and wash these dishes." I answered, "Yes, mother."

14 years old

SUN

As I walk along a chalky black cloud I wonder
where is my friend, the last I saw of him he
was playing hide and seek with the birds and
leaping from one cloud to another with only a
crack to admit its presence. If only it were
sooner or in this case later, I could visit
him everyday and feel his life all over my body.
I remember when I was young and he still rather
old would find a field and sit and watch the world
turn slowly and determined as if to win a race that
will never finish, and as it turns my friend leaves
my side and pays a visit to the hills and then to
the plains and last to the sea where it is buried in
a field of water and wave and at the last moment it
kisses the earth's lips and like a great snuffer
snuffing out a candle's life, it sinks into the earth's
waters and again I cannot see life.

14 years old

THE MOON

I am visiting space today. When I landed on the moon, I saw Zoltan. I saw a two-headed Zoltan on the moon.

7 years old

PLUTO

Pluto is the coldest planet around. On Pluto the leaves are dry. I will go to Pluto in a rocket. When I go to Pluto it is going to be cold and I better take a sweater and some lunch.

9 years old

MY TRIP

My trip was very good. We went on twenty airplanes in one week. We went on the airplane Air New Zealand to go to Tahiti. We stayed at the Royal Tahitian Hotel. Then we went to the island Bora Bora and we stayed at a hotel there. There was a man there whose name was Muck. Muck had a fish pond with trout in it; 20 big trout and 19 little trout. And he walked in it. He stepped on a fish's tail and then the fish went into a little pipe to the other fish pond. Then it went through another pipe to another fish pond. Then three babies followed it. We stayed at the hotel 3 days and 4 nights. We left to another Island. We stayed there 3 days and 2 nights. Then we left for the island Tahiti. We stayed there 1 day and 1 night. We went to the airport and waited an hour and a half for the airplane Air New Zealand. When we got the airplane, we went 1st class. A stewardess gave us a towel with alcohol. It took us 10 hours to get to the L.A. airport. The airplane served us an egg with chopped up meat in it. Then I ate corn flakes. When we got home it was raining, but the airplane didn't get wet.

7 years old

SWIMMING

I wish it was summertime. I like to go swimming. Swimming is fun. I go swimming at Exposition Park. It costs twenty cents. I swim in four feet of water. Four feet is deep. After swimming I take a hot shower. Then I put on my clothes. I go home.

8 years old

Key to Writer's Background

(A = Advantaged; D = Disadvantaged)

Poetry

On Love: A
(p. B-3)
D

On War: D A
(p. B-4)
A

D

On the Assassination of
Martin Luther King, Jr.: A A
(p. B-5)
D

D

On the Flag: D
(p. B-6)
A

D

A

On City Life: A
(p. B-7)
A

D

D

Thoughts and Moods: p. B-8: A

D

p. B-9: A

D

p. B-10: D

A

p. B-11: A A

D

D

D

D

A

Essays p. B-12: D

A

p. B-13: D

A

p. B-14: A D

A

D

Puppets, Drama, Music, and Art

The following pictures and examples tell most of the tale regarding intensity of interest and pure joy which an "extra-curricular" focus on the arts can unleash in any school setting.

Puppets and Drama

Every Friday plays were presented. The children wrote, produced, directed, and acted in these productions. Puppets and marionettes were made and used in quite a few plays, and as can be seen from the handbill on the next page, the topics were quite varied.

Cooperation, communication, and follow-through – all were skills to be learned and practiced as the boys came together to prepare their scripts and productions.

A segment from one of the plays prepared by students in the youngest classroom.

THE FLINTSTONES

Cast

Kurt: (Fred)
Brian: (Barney)
Roy: (Mr. Slate & Cubscout leader)
Howard: (Wilma)
Colin: (Betty)
Eben: (Pebbles)

Cubscouts
Darren
Curtis

Scene: (Fred is supposed to be going to work)

Fred: Goodbye, Wilma! I'm going to work.
Barney: Bye, Betty, I'm going to work.
(They get in the car)
Fred: Come on Barney, let's go to work.
(They arrive at the office)
Fred: Mr. Slate can I have a vacation for a week?
Mr. Slate: Sure, Frederick, now get out of here.
Barney: Mr. Slate I want a week off.
Mr. Slate: Sure old buddy, old pal.
(Barney and Fred get in the car and go home)
Fred: Ya ba du ba doo!!
Barney: Fred, keep your hands on the wheel!

Scene: (Cubscout meeting)

Thursday – the final rehearsal.

11:00 a.m., May 16, 1969 – Class 134 Presents on the patio:

The Banana Splits	directed by Tommy
Starring	Eric, Kurt, Eben, Colin, and Miss Barbanell
The Flintstones	directed by Kurt
Guest Star	Kurt
Also Starring	Howard, Eben, Darren, Brian, Curtis, Roy, and Colin
Hansel and Gretel (Marionette Play)	directed by Curtis
Special help from:	Mrs. Dagort
Starring	Eli, Curtis, Darren, Howard, and Damon

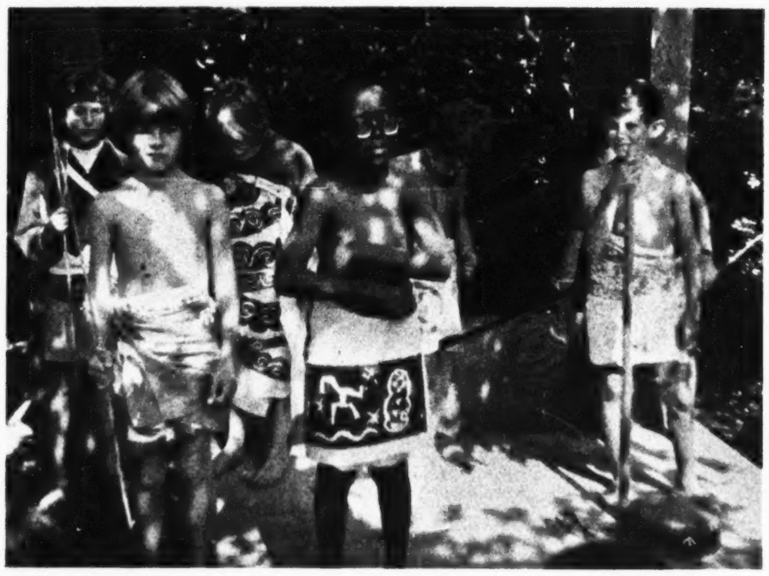
At Friday's plays, everyone participates, taking turns acting and listening.

(Everybody's a critic)

A trip to the UCLA theater arts department's puppetry workshop inspired these students to build their own small puppet stages to use at home as well as at school.

Besides puppet stages, each "production company" painted their own cloth scenery. These backdrops were hung on a chartrack which was then placed in back of the stage.

Hansel and Gretel



The First Hawaiians

Two productions by the youngest classroom.

Music

"This land is your land, this land is my land"

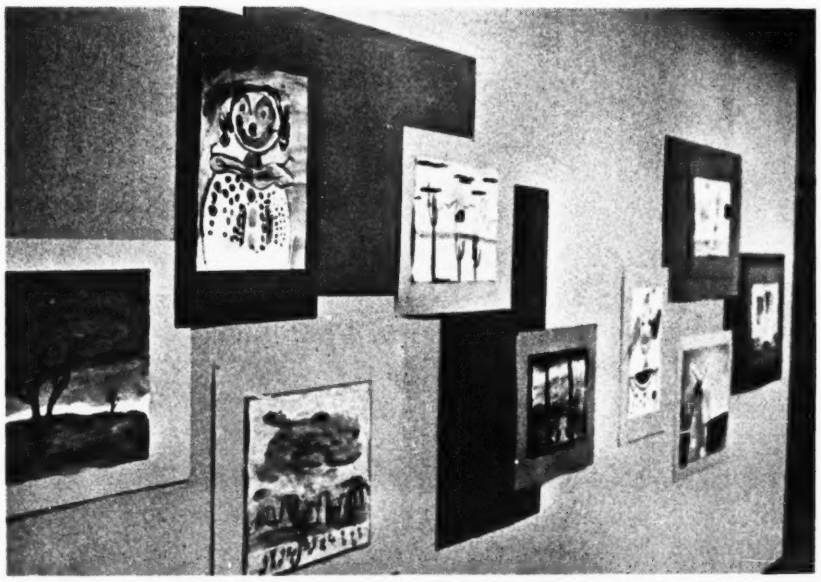
Fernald teachers believe in developing activities around the talents of the trainees and the interests of the children. In this case, one trainee's love of and ability with the guitar led to lessons for all who wanted them.

According to the teacher, "Ray worked hard at his daily compositions in order to be ready in time for his lesson. Several children read lyrics during their free reading period in order to sing with their guitar teacher."

Drawing, painting, clay work – art was a constant source of satisfaction and pride.

John Otterson, a professional artist of note, came once a week to teach and inspire.

Art presented a unique opportunity not only to foster creativity, but to teach basic skills.



A highlight of the year was a special display of Fernald School student's art work at the Santa Monica Library.

The Picnic

In June, 1969, the Friends of Fernald (our version of the PTA), sponsored a picnic. As often seems to be the case with such informal, out-of-the-classroom contacts, the parents, children, and teachers experienced a greater feeling of closeness and sense of common purpose. (And that's probably the fabric from which positive attitudes toward school are made!)

The Student as Teacher

The idea of students teaching other students has received wide attention in recent years. The following report shares how one teacher initiated and views such a program.

It becomes clear very soon after beginning to work with these educationally handicapped boys that supplying them with the necessary academic skills will not be enough to ensure them academic success. Several years of failure in school have left their mark on the boys. They have become convinced of their worthlessness. They care little about themselves and even less about one another. Their rejection of academic work is so complete that it often continues even after suitable skill levels have been reached. Part of our job in remediation is to help these boys to feel better about themselves, so that they can have the confidence to use these newly-acquired skills.

For this reason, we worked cooperatively among the classrooms to give the boys an opportunity to tutor each other in several areas. By prearrangement, several older boys went in to work with younger ones on a regularly scheduled basis. The boys chosen to do this were not necessarily those with the greatest skill; they were chosen because they said they would like to try it. The periods of tutoring lasted from twenty to thirty minutes, and were frequently in basic skill areas such as reading, arithmetic, and writing. The teacher of the younger boys provided activities in reading and arithmetic which were suitable to them, and the older boys sat with them and helped them with their assignments. And one boy, who is extremely shy and withdrawn, was even asked to help set up a program in electronics for a younger classroom.

There were several purposes in setting up this project, Primarily, we wanted to give the older boys a feeling of competence. We wanted to let them show what they can do, and gain status as a skilled person. (At the same time, they would be given practice in learned skills.)

An important aspect of this project was the placing of responsibility on the boys involved. They knew that they had to be in a certain place at a certain time, and that someone was counting on them. For many of them, this was the first such experience in their lives. As well as experience in accepting responsibility, we wanted to give them a chance to care about the progress of someone else.

Another goal of the program was to increase the boys' skill of paying close attention to a task. We thought that they would be forced to pay attention if they were placed in the teaching role. We wanted them to learn the importance of following directions in order to complete a task successfully, and we wanted them to learn to give clear directions and to organize their own thinking.

We were quite pleased with the results of the project. The boys looked forward to their tutoring appointments, and the younger boys looked forward to seeing them come. Many interesting side-effects occurred. For example, one boy learned to carry a pocket dictionary with him after a child asked him to spell "journey", and, not knowing how to spell the word, he found himself convincing the boy to use the word "trip" instead. After that, he never went to a tutoring appointment without his dictionary.

The boys would report enthusiastically on the progress of their tutees and were extremely conscientious in keeping their appointments. And it should be noted that to be on time meant having their own classwork done and done well.

In closing, while it is difficult to evaluate the effect of this program on self-concept, it is felt that there were great gains made in this area as well. These boys are on the brink of adolescence, and this experience came at a time when they are defining their roles as mature people. Being responsible for someone else and being respected as a skilled person were important experiences for them to have had at this time.

Special Studies

In order to share some idea of the content of some of the special studies programs, the following extracts have been taken from reports written by Fernald School teachers. Two areas have been chosen: (1) Science--because this is a traditional academic subject taught in the public schools, and (2) Black History--because of the current controversy surrounding this subject.

SCIENCE

"A great variety of activities were carried out in this area. The boys displayed a keen interest in animals. They took care of the class pet guinea pig with tender loving care, and when someone forgot to feed him, there were lengthy student-generated discussions about responsibility."

"A telegraph set was assembled and used to send messages by Morse Code. (Boys could be found learning code in their spare monents.)"

"A black box with a mysterious object in it appeared frequently and children spent a good deal of time figuring out what must be in it from how it sounded when the box was moved in different ways, and from how much a similar box weighed when empty, and so on."

"A microscope inspired long sessions looking at familiar things more closely and attempts to record in sketches and in words what was seen."

"Two boys developed various experiments to demonstrate to other boys. (Their explanations were really very clear and accurate.)"

"Another boy gave an outstanding talk on the Apollo 11. He passed out information and had built a demonstration kit; he even gave a quiz at the end!"

"One group elected to study about the circulatory and nervous systems and could be seen daily poring over books, diagrams and models of the human body."

"Others chose to build their own projects in the Science Center (a table in one corner of the room equipped with an inexpensive chemistry set, a dry cell battery and wiring, etc.)."

BLACK HISTORY

"Our study of Black History began quite casually. Early in the year, there was a series on articles on the topic in Life magazine which seemed to evoke the interest of the students. This interest led to a series of small group discussions, to role playing, to readings and lectures, and to book reports and research papers on this topic."

"Group discussions included wide ranging thoughts and attitudes regarding discrimination and bigotry; role playing led to such situations as a black student playing the part of a white parent reacting to a black parent--played by a white student--who was moving into his all-white neighborhood; book reports, including the Life magazine articles, The Negro in American Heritage and The American Negro (recent California State Series), Soul on Ice, and The Autobiography of Malcolm X, were reported orally and discussed; research papers focused on topics such as Negro Artists, and The Negro Athlete."

"This approach to the teaching of Black History seemed to be effective with regard to teaching content and with regard to improving communication between students, trainees, and the classroom teacher. It is worth noting in this regard that there were no racial incidents in the classroom during the year. Undoubtedly the discussion on such terms as 'honkie' and 'nigger' contributed to a greater awareness on the part of the students regarding the feelings of others. Both blacks and whites came away from the course with an increased understanding of the problems yet to be solved by our society."

From the coach's perspective...

As the following summary statement by the Fernald School coach indicates, the school's physical education program is quite dissimilar from those to be found in most public schools. However, it is to be emphasized that the dissimilarity results not so much from reduced staff-to-student ratios, but from a difference in orientation, i.e., the development of a program emphasizing individual progress even within the context of competitive sports.

"Our goal on the Fernald athletic field is one of helping students to feel confident in social-athletic situations, and teaching them respect for others' rights and feelings. In this regard, the project has been very successful.

"During each year of the project, some disadvantaged students have entered our school with a high level of hostile feelings, which were expressed toward one another as well as toward others at the school. That racial tensions were a contributing factor in this appears certain; yet intra-racial hostilities were so frequent that it became clear that these hostilities reflected a basic life-style, rather than being a product of short term social pressures.

"With few exceptions, these youngsters left the school considerably calmer and more accepting of one another, having developed a greater confidence in their abilities, and recognition of their personal self-worth.

"The techniques used on the field to foster this self-confidence and sensitivity toward others had two basic ingredients. First, the coaches emphasized the positive. That is to say, students were encouraged and complimented at every opportunity available to the coaches. This is possible with all students when progress at an individual level is emphasized, rather than the competitive aspect of each game.

"Secondly, inappropriate behavior was met by consistent consequences. Our manner of changing behavioral batterns involved patient discussion with the infractor as to why a specific behavior was inappropriate. Where this discussion did not cause a change to occur by itself, it was re-enforced by such consequences as not being allowed to participate. That consequences were successful in changing behaviors, while also producing a happier, calmer child was in no small part due to the way in which they were applied. Care was taken to insure that inappropriate behavior was 'separated' from the child himself, i.e., 'You're a fine boy, but your habit of shouting out cuss words when you miss a ball has got to stop." This 'method' also minimizes personal attack, and therefore arouses less defensive mechanism. It also turns problem situations into workshops which can create human understandings as well as providing guidance."

From the perspective of the school's administrators...

As tradition dictates, the last word is left for the school's administrators.

"From the onset, we were struck by the similarity in behavior and attitudes between the disadvantaged and advantaged youngsters. This similarity encompassed positive and negative traits ranging from the manifestation of a wide variety of talents (music, art) to inappropriate aggressive behavior."

"On the whole, each year the youngsters adapted to the school and to each other radidly. Before classes began for the year, individual conferences were held with each youngster. At these conferences, teachers and pupils began to learn about each other by exploring interests and concerns. In this way, the accent was placed on the specialness and uniqueness of the individual from the very beginning of the year."

"We have found over the years that many students come to Fernald with a preconceived notion that the school is for mentally retarded or disturbed students. To dispel this notion, group and individual discussions were held. (When the school's name was changed two years ago from the Psychology Clinic School to Fernald, this made the task a bit easier.) Another fear which had to be dispelled was the students' concern that they would lose a year by attending Fernald, i.e., that they would be returned a year later to the same grade from which they had been taken. Again, clarification of this point was needed, and we found that we had to repeat our reassurances many times during the year."

"As is often the case, my first close contacts with some of the boys came when problems occurred and they were sent to the office. At times, racial conflict was involved in these problems, but I was struck by how often what appeared, at first, to be black versus white was a very typical instance of an angry hostile boy (black or white) directing his anger at the nearest person."

"When discipline was necessary, it was designed to help those involved to learn alternative modes of behavior, to clarify feelings, and to build understanding. Our goal was to build positive, not negative, self-images."

"To counter my image as a 'bogey man', I worked with various classes during creative writing and drama activities. I believe it was valuable for the boys to see me in a positive role and to understand that my goal was to help--not punish. Perhaps more importantly, I believe that the involvement and satisfaction they gained from such creative endeavors helped to improve their self-concepts and behavior, thereby keeping them out of my office."

"The bus ride was a chronic problem. The boys had too little to occupy themselves with and often became too noisy and disruptive. This especially was the case when the bus driver was inexperienced. We tried a number of tactics, e.g., small games to play, comic books to read on the trip, candy as rewards for good behavior; all worked well for a while. The only long range solution, however, has been to have a male college student ride the bus and act both as a friend and an authority."

"Contact with parents was variable. It has been our experience that as youngsters get older, their parents come to school less often--at least this seems to be the case as long as the choice is theirs. It is our belief, however, that frequent communication with parents regarding progress and problems contributes to greater success. During the regular school year, at least one formal conference is planned at the Fernald School with the parents of each student. Other conferences are scheduled if needed and the parents are encouraged to contact the school at any time. In addition, a parent's night is held once a year. At that time, formal presentation of the school program, policies, and philosophy are delineated; also brief, informal discussions between parent and teacher are held. It is our hope to establish close relationships with all parents, and thus when our usual approaches proved inadequate to the task with regard to so many of the parents from inner city, we changed some of our procedures. In those cases where we were not having contact with parents and felt it was particularly necessary, we made contact by telephone and/or by traveling to the youngster's home. In addition, we arranged to have all formal conferences for the parents of inner city youngsters held at the youngsters' own public school, i.e., the school he regularly attended. This was done because the distance to Fernald was too great for many parents to travel. Again, however, we found that the greatest response was by parents of children in the lower grades."

"Parents who attended such conferences expressed gratitude that their children had been given the opportnnity to attend Fernald and indicated that they had seen many favorable changes in their children. They also expressed interest in having their youngsters remain at Fernald for a longer period of time. (This was a sentiment echoed by most of their children as well.)"

"Since we have no funds to maintain these youngsters at Fernald, we knew that they would all have to return to their original schools. Therefore, as the end of the year approached, steps were taken to facilitate the transition back. Meetings were held with personnel from the regular schools. On the junior high level, the counselors even came to Fernald to meet with the students--to answer questions, to give them the calendar of events for the fall, and to make out program schedules. This was particularly important to these older boys because many of them were afraid that there would be no electives left open for them and that they would not know where and when to report to regular school."

"How do I assess the effectiveness of what we did? I can only say that I saw many behaviors change--I saw learning--I saw blacks and whites playing and working together. I saw frightened, angry boys learn to trust and even to love their teachers and peers. And, sadly, I saw others for whom trust and love have yet to develop. We did a great deal for some; there is still a great deal to do."

Appendix C

A GUIDE TO SOME OF THE MAJOR JOURNALS AND REFERENCE SOURCES WHICH ARE CONCERNED WITH CLOSED CIRCUIT TELEVISION

1. Periodicals

*Audio-Visual Communications Review
*Audio-Visual Instruction
Cablecasting and Educational Television (the technical and applications journal of cable TV, educational TV and instructional TV)
*Educational Broadcasting Review (formerly the NAEB Journal)
Educational/Instructional Broadcasting (The International Journal of Educational Radio Television)
Educational Screen & Audio-Visual Guide
Educational T.V. International
Educational Television
EDUCOM (Bulletin of the Interuniversity Communications Council)
Journal of Broadcasting (Association for Professional Broadcast Education, 1812 K Street, N.W., Washington, D.C. 20006)
Television Quarterly (National Academy of Television Arts & Sciences, Television & Radio Center, Syracuse University, Syracuse, New York 13210)

2. Organizations and Special Information Offices

Great Plains Instructional Television Library
Lincoln, Nebraska 68508
Joint Council on Educational Broadcasting
1346 Connecticut Ave., N.W., Washington, D.C. 20036
*NAEB (National Association of Educational Broadcasters)
1346 Connecticut Ave., N.W., Washington, D.C. 20036
National Instructional Television Center
Box A, Bloomington, Indiana 47401
Television Information Office
666 Fifth Ave., New York 19, New York

For current research results, research-related materials, and other resource information, The Clearinghouse on Educational Media and Technology, one part of ERIC (Educational Resources Information Centers) can be helpful. The Clearinghouse is located at Stanford University: ERIC, Institute for Communications Research, Stanford University, Stanford, California 94305.

*Indicates the sources which we found to be especially valuable.

Appendix D

A GUIDE TO OTHER PROGRAMS WHICH ARE CURRENTLY UTILIZING CLOSED CIRCUIT TELEVISION

In order to become more familiar with the uses of closed circuit television around the country, the following cover letter was sent to selected educational and mental health institutions, i.e., institutions which we felt might be employing closed circuit television in a manner applicable to the present work at Fernald:

> "The Fernald School, U.C.L.A., is presently exploring the use of closed circuit television and videotape recordings in the areas broadly defined as general education, professional training, and research. If your institution is presently employing television in any area, we would appreciate any information which is available on your present work and your plans for the future."

Obviously, we did not receive replies from all those included on the mailing list, nor did we find all the replies helpful.* The following list is an annotated reference to those programs which we found helpful in formulating our thinking in this area. Individuals beginning programs may also find these resources helpful and therefore may wish to write to:

1. Zelia S. Evany, Head
   Department of Education and Psychology
   Alabama State College
   Montgomery, Alabama 36101

   This program uses video in the following ways:

   Professional Training --
      1. Student teacher evaluation
      2. Supplement to an in-service program for supervisors and cooperating teachers

   General Education --
      1. Provides observations of a variety of classroom situations for students pursuing classroom courses
      2. Acquaints students with types of school settings
      3. Records discussions and significant programs for later use

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*Approximately 100 letters were sent out and 25 replies received.

2. Laurence B. Stone
   Instructional Media Center
   Michigan State University
   East Lansing, Michigan 48823

   Uses: General Education --
   Instructional television with an extensive program of research and experimentation to improve the effectiveness of Instructional TV

3. Secondary Teacher Education Program
   School of Education
   Stanford University
   Stanford, California 94305

   Uses: Professional Training
   1. Pre-service micro-teaching
   2. Field recordings in classrooms
   3. Supervisory techniques
   4. Supervisory training
   5. Remote supervision
   6. Inter- and intra-visitation

   General Education --
   1. Instructional
   2. Substitute teacher
   3. Teacher employment

   Further information is available in an excellent article entitled: Television Recordings and Teacher Education: New Directions, by Robert H. Pinney and Robert J. Miltz, which can be obtained from the above address.

4. Donald M. Hatfield, Ph.D.
   School of Education
   University of California
   Berkeley, California 94720

   Uses: Professional Training --
   Student teacher self-evaluation

5. Juanita Skelton
   Educational Media Center
   College of Education
   The University of Georgia
   Athens, Georgia 30601

   Uses: Professional Training --
   1. Micro-teaching at graduate and undergraduate level
   2. Counseling evaluation
   3. Videotape production for educational media specialists

6. Robert G. Smith, Ph.D.
   Division of Education and Psychology
   University of Corpus Christi
   P. O. Box 6010
   Corpus Christi, Texas 78411

   Uses: General Education --
   1. Student feedback and evaluation of performances for various courses
   2. Off-the-air recording for class presentation
   3. Guest lecture videotape exchanges
   4. Instructional

   Professional Training --
   1. Student teacher evaluation
   2. Counseling evaluation

7. Robert Lowell
   Reading Clinic
   College of Education
   University of Maine
   Orono, Maine 04473

   Uses: Professional Training --
   1. Clinician evaluation
   2. Feedback and evaluation in teacher preparation courses

   General Education --
   1. Presentations demonstrating diagnosis and remediation
   2. Presentations on the teaching of reading for elementary school teachers

8. Donald W. Knight
   Developmental Reading Center
   University of Southern Mississippi
   Southern Station, Box 26
   Hattiesburg, Mississippi 39401

   Uses: General Education --
   1. Presentation of specific activities related to reading instruction
   2. Presentation of reading conferences

   Professional Training --
   Graduate and undergraduate teaching activities evaluation

9. B. Charles Leonard, Ph.D.
Coordinator of Instructional Television
University of Missouri, Columbia Campus
Columbia, Missouri 65201

Uses: General Education --
Instructional

Professional Training --
1. Teacher instruction in administration, supervision, school finances, etc.
2. Technique courses for teacher preparation
3. Counseling evaluation, feedback, and techniques
4. Student teacher evaluation

Research --
1. Appropriateness of feedback to student teachers, student counselors, psychologists and other social science areas
2. Research on the teaching process

10. Nebraska Council for Educational Television
1620 'R' Street
University of Nebraska
Lincoln, Nebraska 68508

Uses: General Education --
A complete and extensive educational television network. (They have several pamphlets and articles available concerning this network.)

11. William F. Moorhouse or Dr. Donald Forrest
Department of Guidance and Counselor Education
College of Education
University of Wyoming
Laramie, Wyoming

Uses: General Education --
Instructional

Research --
Ratings and evaluations of group activities taken from twenty small group discussions

Professional Training --
Counseling feedback, evaluation, and techniques

Dr. Forrest has recently written an informative paper entitled The Use of Video Tape Recordings (VTR) in Counselor Education. It includes many of the innovative and interesting applications of videotape recordings and a brief description of equipment, along with selected references.

Much less specific information on closed circuit television programs in operation has been obtained from the major equipment manufacturers. The two sources we found of most value were:

Application Bulletin
published by the Sony Corporation of America
47-47 Van Dam Street
Long Island City, New York 11101

Videoscope
published by the Ampex Corporation
Consumer and Educational Products Division
2201 Lund Avenue
Elk Grove, Illinois

For further information, it may be helpful to consult these companies:

Bell & Howell
Tape Products Division
7100 McCormick Road
Chicago, Illinois 60645

Concord Electronics Corporation
1935 Armacost Avenue
Los Angeles, California 90025

General Electric
Closed Circuit Television Section
Visual Consumer Products Dividion
Electronics Park
Syracuse, New York 13088

R. C. A.
2700 West Olive
Burbank, California 91505

Shibaden
1730 Sepulveda Boulevard
Los Angeles, California 90025

Appendix E

VIDEOTAPE RECORDERS -- SYSTEMS AND COSTS

The following presentation was prepared so that individuals interested in purchasing videotape recording systems may profit from our experiences with such equipment. Included are descriptions of: (1) factors to be considered in purchasing such a closed circuit television system, (2) a minimum cost system, with some alternate choices and optional accessories mentioned, (3) the current Fernald system, and (4) the comparative features of ½" and 1" videotape recording systems.

The focus is on Sony equipment because we are most familiar and satisfied with the quality and performance characteristics of this company's products. In addition, while other companies have similar equipment within the same price range, the following systems are viewed as having greater versatility with reference to adding equipment at a later time for purposes of extending the capabilities of the system. It should be noted, however, that new advances in equipment design and capabilities are occurring almost weekly; therefore, it is always advisable to seek objective consultation before making a purchase.

1. Factors to be considered in purchasing a closed circuit TV system

The following factors are listed as a guide to help the potential closed circuit television buyer relate his specific needs to costs and features in the equipment. Therefore, it is necessary for the potential buyer, first, to enumerate his needs and, second, to find which system will come closest to meeting the majority of these needs.

a. Cost Factors
    (1) Initial costs of equipment and installation
    (2) Initial costs of tape
    (3) Service costs, warranty and/or service contracts
    (4) Manpower requirements, both professional and non-professional
    (5) Equipment depreciation
    (6) Whether it is more reasonable to rent or to purchase the needed equipment

b. Equipment Features
    (1) Automatic audio and video controls, which are very helpful for non-professional operators
    (2) Ease of operation and required set-up time
    (3) Reliability, portability, and durability

b. Equipment Features (continued)
   (4) Interchangeability of tapes and equipment
   (5) Can the basic system be adapted to include such accessories or auxiliary equipment as:
      (a) Second camera--with provision for the addition of
         --viewfinders for both cameras
         --specific lens for specific needs
      (b) Switching or special effects device to
         --select picture of desired camera
         --dissolve between cameras
         --"split screen" effects
      (c) Second videotape recorder to provide
         --second audio channel
         --new audio over existing picture
         --slow and stop motion
         --color convertibility
      (d) Special microphones and amplifiers or acoustic modifications for desired sound
      (e) Equipment carts, cable-cords, lights

2. Minimum Cost System -- Total Cost: $1,440 (videotapes for this unit cost $40 per tape which records for one hour)

a. Sony ½" Videotape Recorder Model CU-2200 $850

Features:
-Automatic recording levels for both audio and video. Only one non-professional person needed to operate this system.
-Portable--weighs 49 pounds
-7" reel contains one hour of recording time.
-New audio tape can be added to existing video recording, but, at the portion of the tape where the new audio is inserted, it will erase the original sound track.
-No slow motion or still framing. Duplication and editing are possible with a second identical machine and a duplicating adaptor (Sony VDC-1).

b. Sony Video Camera Ensemble VCK-2100 $395

Includes carrying case, tripod, mike desk stand, lavaliere mike, necessary cables and cords, and a 25mm. f1.9 lens

Features:
-Automatic lighting control (non-professional person can operate)
-Camera can be connected directly to the TV receiver for monitoring purposes.
-Optional viewfinder may be purchased that attaches to top of camera.
-Other lens (including zoomer) may be purchased for camera.

c. Sony Portable Monitor/Receiver CUM-51UWP $195

Features:
- 8" picture screen
- May be used as a program source for recording VHF and UHF programs
- Serves as a monitor and speaker for both recording and playback

d. Alternate choice: Depending upon individual needs, this substitution or addition could be made for the Video Camera Ensemble VCK-2100:

Sony Videocorder DVK-2400 and Video Camera VCK-2400 $1,250

Features:
- Both camera and recorder are battery operated.
- Weighs 16 pounds, completely portable
- Automatic video and audio
- Built-in viewfinder on camera
- 4-to-1" zoom lens
- 20 minute recording time on 5" reels
- Unidirectional microphone
- Battery charger
- Carrying case
- With an adaptor (CMA-1 $195), the camera may be used with the Sony Recorder CU-2200 and would function as explained for this recorder
- Pistol grip handle may be used on any tripod that sells for less than $50.
- Tape playback can be done on the CU-2200 recorder only

This unit can be used anywhere in field recording that does not have power or where less than 20 minutes of recorded material is needed. In a classroom or studio situation, the camera can function with the CU-2200 Videotape Recorder.

e. Optional accessories

Possible additions to the minimum cost unit to provide a complete closed circuit system:

1	Sony Video Camera Ensemble VCK-2100	$395 ea.
2	Viewfinders CVF-4	175 ea.
2	4-to-1 Zoom Lens VCL-20	200 ea.
1	Camera Selector VCS-21 to switch between two cameras	16 ea.
1	Sony Videotape Recorder CU-2200	850 ea.
1	Duplicating Adaptor VDC-1	25 ea.

These last two items would provide facilities for for duplicating and editing, or as a second recording unit utilizing one camera.)

e. Optional Accessories (continued)

2 extra microphones (selection based on needs)	$40-70 ea.
1 audio mixer for three microphones	25 ea.
1 18" Monitor/Receiver CUM-1800, to be used as a large screen for playback, or as a monitor for the second camera	250 ea.
APPROXIMATE TOTAL:	$4,000

This would provide two viewfinder cameras with zoom lenses and the ability to record and switch between the two cameras. It would also provide for duplicating and editing facilities.

For an additional $1,400, the battery operated unit may be purchased. Therefore, for approximately $5,400, a complete closed circuit system is available.

3. Fernald School Closed Circuit Television

a. Sony 1" EV-210 Videotape Recorder with Editor $3,895

Features in addition to those available on the ½" Recorder
- Electronic slow and stop motion
- Second audio channel to record audio information at a later date without erasing or disturbing the previously recorded picture and sound
- Option of adding full remote controls
- Horizontal or vertical operation
- No automatic video and audio (semi-professional person needed for advanced productions)
- Tape costs $60 per hour
- Technical quality is higher with this 1" machine, although generally this cannot be seen with the normal eye.

b. General Electric Camera TE-20 $1,595

Features:
- Compact and rugged
- Automatic light compensator
- No provision for viewfinder

c. Angenieux 10-to-1 Zoom Lens $920

d. Limpander Amplifier SS-100 $460

Features:
- Three audio inputs
- One audio output
- Functions on a compression amplifier; serves as a partial automatic audio control with the videotape recorder
- Used as a playback amplifier for speakers, specifically the Conrac Monitor CBA25Y

e. Sony Monitor PVJ-510 $195

Features:
- Used as a recording and playback monitor
- No VHF/UHF tuner for recording VHF and UHF programs

f. Hercules Tripod 5302; Dolly 5602; Head 5261 $562

g. Conrac 25" Monitor CBA25Y and Speaker ES2S $500

- Used for playback with larger audiences

h. 2 Shure 545 Microphones $178

i. Electro Voice 644 Soundspot $70

j. Portable Equipment Cart $450

- Accommodates the videotape recorder, Limpander amplifier, Sony Monitor, and accessory cables and cords

4. Comparison of ½" and 1" Video Systems

The major reasons for the differences between the recommended system and that presently owned by the Fernald School are that (1) most of the equipment in the recommended system was not available at the time Fernald made its purchases, and/or (2) the equipment did not meet the standards of durability and quality, or contain some features which the Fernald personnel felt essential at that time.

½" VTR System	1" VTR System
Costs:	
Initial equipment costs and installation: $2,000 - $6,000	Initial equipment costs and installation: $5,000 - $10,000

Costs (continued)

Videotape: $40 per hour	Videotape: $60 per hour
Non-professional salary	Semi-professional person needed for advanced productions.
Lower service and repair costs	

Quality:

Picture quality is equal in appearance to 1" (i.e., the normal viewer would see no difference in quality).	From a technical standpoint, the 1" videotape recorder picture is superior.
Technical quality: Neither ½" nor 1" equipment has been in use long enough to make definite comparisons as to the life of videotape recording machines. The available information suggests that the machines are nearly equal when considering the costs of replacements for worn-out parts.	Warranties tend to be much longer for the 1" machines, but the eventual cost of parts replacement and servicing is higher.

Operation:

Automatic controls for both camers and videotape recorder would normally need only one non-professional person to operate.	Some cameras have automatic controls, but no videotape recorders appear to have automatic audio and video controls. Normally, two people would be required to operate the system. One semi-professional person would be needed for advanced productions.

Color:

Present ½" systems cannot be converted to color.	Most 1" videotape recorders can be converted to color. A color camera would have to be purchased.

Special Features:

No slow or stop motion	Slow or stop motion

(No mention of 2" videotape recorder systems was made because the technical sophistication and the needs of a 2" system generally require the advice of a professional technical consultant--this was felt to be much beyond the range of this paper.)